



清 禾

Whole Plant Equipment Manufacturing

整廠設備製造

International
Quality
Specialty





Europe

Asia

Africa

Oceania

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清禾有限公司於西元1997年成立，本公司秉承“服務第一，以客戶需求為第一，不斷的追求新技術及觀念要與客戶產品同等升級”，因為全世界生產的產品已趨向高品質的時代。

CHING HAIR Co., Ltd. was established, the Company adhering to the "first service to customer demand for the first, the constant pursuit of new technologies and ideas with The same product, upgrade, "because the production of the world tend to have high- quality products of the times.

清禾有限公司成立迄今， 的品牌一直深受廣大客戶的支持及信賴

目前清禾公司所製造的機械（**連續爐**）遍及東南亞如：

臺灣：健舜，德光，明光，至聖，鉸光，巨毅，輯興，冠昱，賀貴，員彰，六曜，延隆，力大，俊盈，豪加濠，政茂，光泰，泰豐

大陸：冠陽，鴻鑫，勝福，上海輯興，艾沛克斯，杭州輯興，宏茂，江震，太倉旭鋒，翰將，大昇，嘉興永航，明興

越南（胡志明市）：CHIN WELL FASTNERS (VN) CO., LTD，尚銘，英茂，徐偉傑，鉸基，COMPASS II CO., LTD，CONG TY TNHH XICH KMC VIET NAM

越南（河內）：TUYET NGA CO., LTD，SUN IVY JSC，金屯，崇詳，越南貿易商（衛利&吳煌&三藤代理）

坩堝滴注式氣體滲碳爐 Crucible drip feed type gas carburizing furnace

進估（梧棲），元昌（大陸），農機廠（越南貿易商東怡&吳煌代理），政展（越南），高力

氣體氮化爐 Gas nitriding furnace 越南貿易商（衛利代理）

鋁合金加熱爐 Aluminum heating furnace 六哥，員鑫，揚仔，登順，盟強，鴻譯，永東泰，全維

鋁錠加熱爐 Ingot furnace 益山

時效爐 Aging furnace 大詳，益山

連續式&箱型除氫爐 Continuous & box de-hydrogen furnace 晉禾，翔宇&鉸光越南廠

固溶化爐 Solid solution furnace 金協益，政展（越南）

箱型回火爐 Box tempering furnace 至興（越南），鑫和勤，春宜

連續式正常化爐 Continuous normalizing furnace 伯鑫（越南），印尼

無氧化光輝退火爐 Non oxidation bright annealing furnace 晉禾（馬來西亞），康郡

COMPANY PROFILE

公司簡介

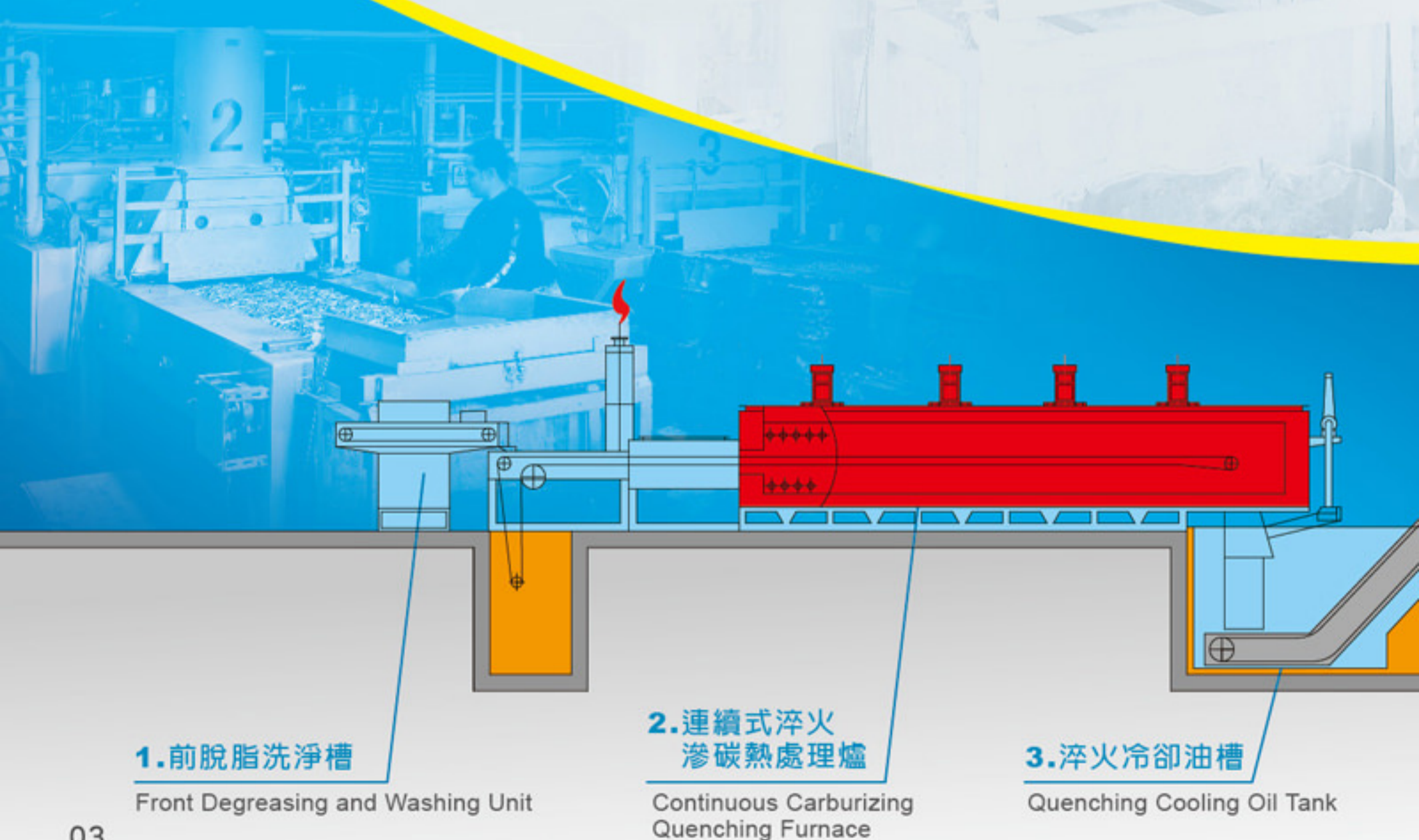
本公司成立於86年1月，座落於彰化縣北斗鎮之高鐵路旁，現在廠房面積約六百坪，結合國內數十家協力廠商合作供應爐內組裝所需之各項零組件，使本公司接獲訂單後於短時間內即可完成交貨。本公司目前依客戶生產需求，提供客戶最佳購爐建議，滿足客戶零件熱處理性能需求及產能需求，使客戶能以最低的投資成本達到最高的投資效益。

本公司成立十餘年來業務蒸蒸日上生產各型調質、滲碳爐、坑式調質滲碳爐、退火爐、零件黑化爐、台車式退火爐、回火爐及各項爐子周邊設備：加熱管、脫脂槽、淬火槽、網帶、送料機...。所生產的產品除本島內銷外，尚有外銷至大陸各地區、越南、印尼、泰國，本公司接獲客戶訂單後立刻協助客戶規劃生產動線、機械佈置方式，於交貨安裝時還派專人到客戶工廠，協助安裝試車至順利生產為止，使客戶達到完全的技術轉移，無須耽憂生產之熱處理技術問題。

本公司除生產工作外尚不斷從事各項研究開發工作，具体如下：
為配合環保需求，淨化工廠作業環境開發環保煙囪，清除含油零件因回火加熱時所造成的煙塵，獲經濟部頒發專利證書。

因應能源成本不斷高漲時代本公司並著手開發節省能源燃燒機，即將熱處理作業所產生的廢油蒐集後送入燃燒機內燃燒，而所產生的熱能導入爐內預熱區，以節省連續爐內第一區的電源消耗，經客戶使用反應頗佳。

本公司今後除需客戶不斷支持與鼓勵外，尚須繼續努力以生產更佳之熱處理設備，提供工業界使用，並對客戶提供更佳之服務。



The company was established in January 1997, is located next to the town's high-speed railway Beidou, Changhua County, the existing plant area of about four hundred pings, Factory existing staff of 16 people, combined with dozens of third-party vendors to supply the required assembly of the furnace Components, so that the Company has received delivery orders can be completed within a short time after.

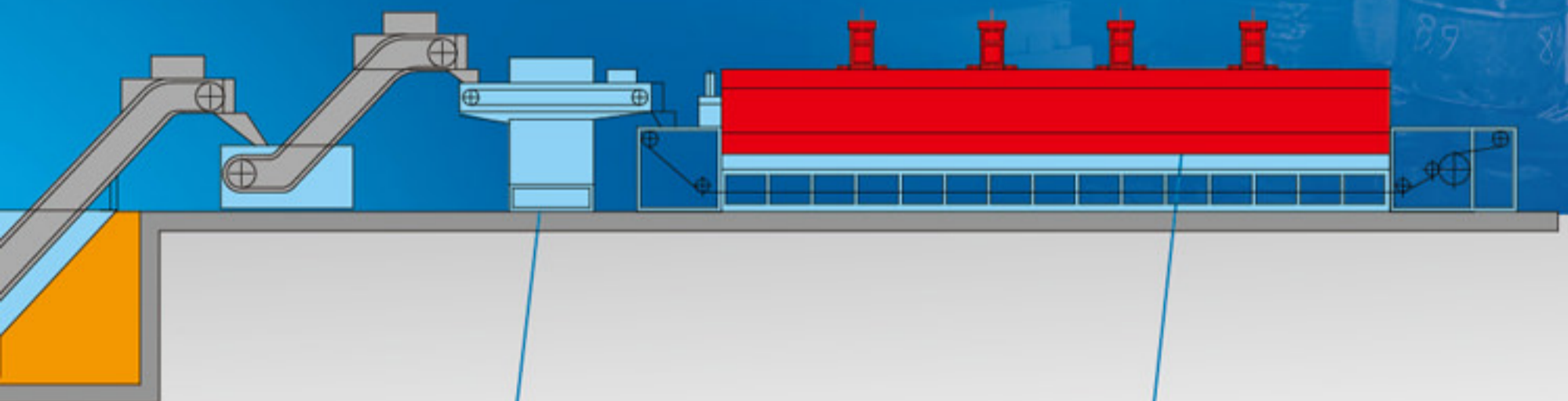
The company currently produces according to customer needs, providing customers with the best shopping furnace proposals to meet customer demand and performance parts heat treatment capacity requirements, enabling customers to achieve the lowest cost of the highest return on investment. The company was established more than ten years business booming production of various types of quenching, carburizing furnace, pit quenching carburizing furnace, Furnace, furnace black parts, car type annealing furnace, stove and the stove peripheral equipment: heating pipe, degreasing tank, quenching tank, mesh belt, feeder The products in addition to domestic sales of the island, there are exported to various parts of the continent, South Vietnam, North Vietnam, Indonesia, Thailand, the Company received customer help customers plan production orders immediately after moving lines, mechanical layout, installation CHING HAIR Co., Ltd on Delivery send someone to the customer's plant, installation commissioning to help smooth production date, enabling customers to achieve full technology transfer, technical problems do not worry about the heat treatment delay production.

The company in addition to production work is still constantly engaged in the research and development work, as follows:

(A) To meet environmental requirements, develop environmentally friendly purification plants operating environment chimney smoke cleared part due to tempering heating oil caused, was awarded a patent certificate of Economic Affairs.

(B) due to rising energy costs when should bring, the Company has initiated the development of energy-saving combustion burn, heat treatment is about to do to collect waste oil generated by the industry into the burner combustion, and heat generated into the furnace preheated region to the first region of the furnace continuously save power consumption by the customer using the reaction was good.

In addition to the company's future needs of customers for their continuous support and encouragement, the continued efforts to produce better yet the heat treatment equipment, providing industrial use, and provide better customer service.



4. 後脫脂洗淨槽

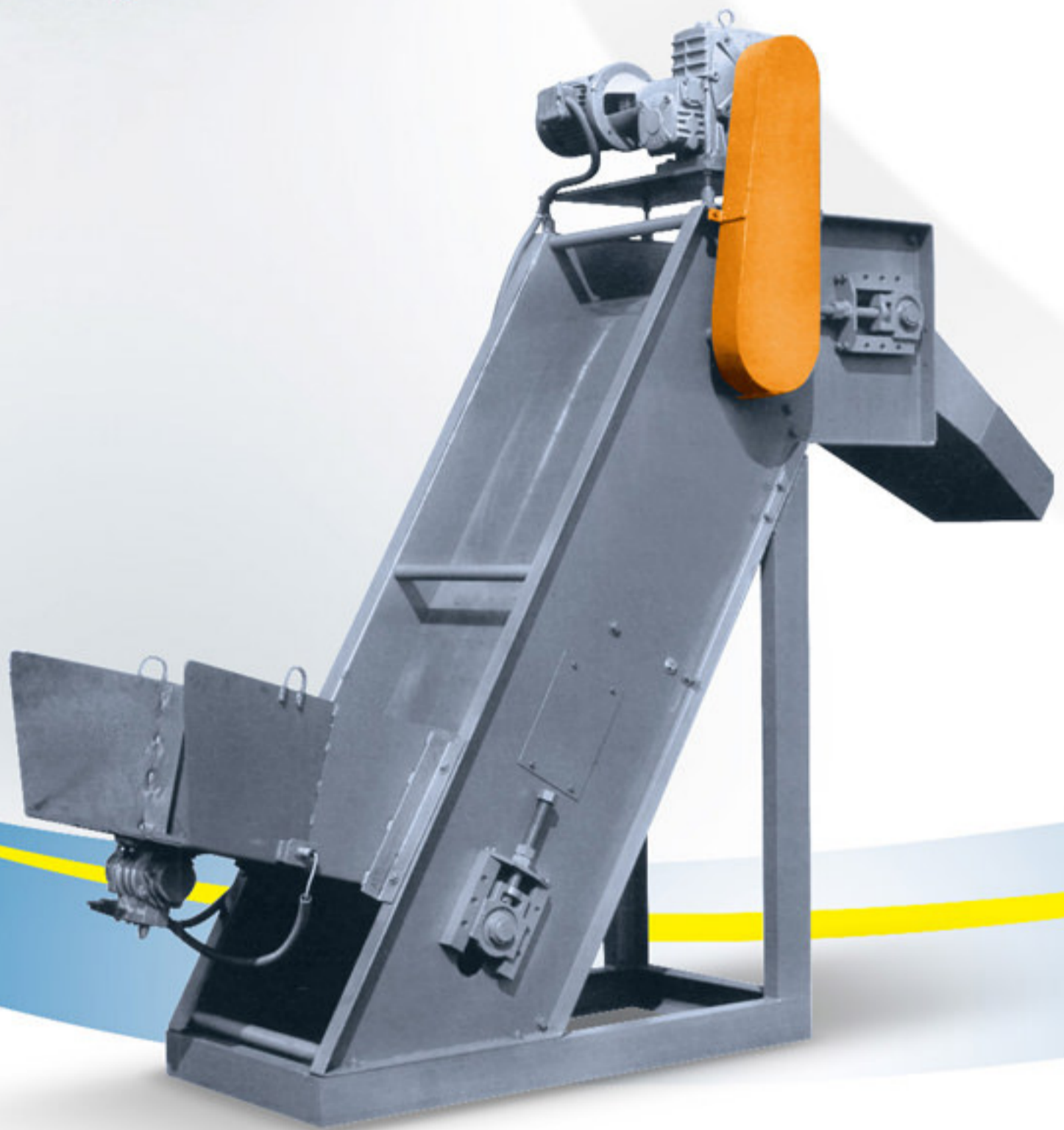
Rear Degreasing & Washing Tank

5. 連續式熱風回火爐

Continuous Hot Blast Tempering Furnace

MAGNETIC CONVEYOR

磁帶式送料機

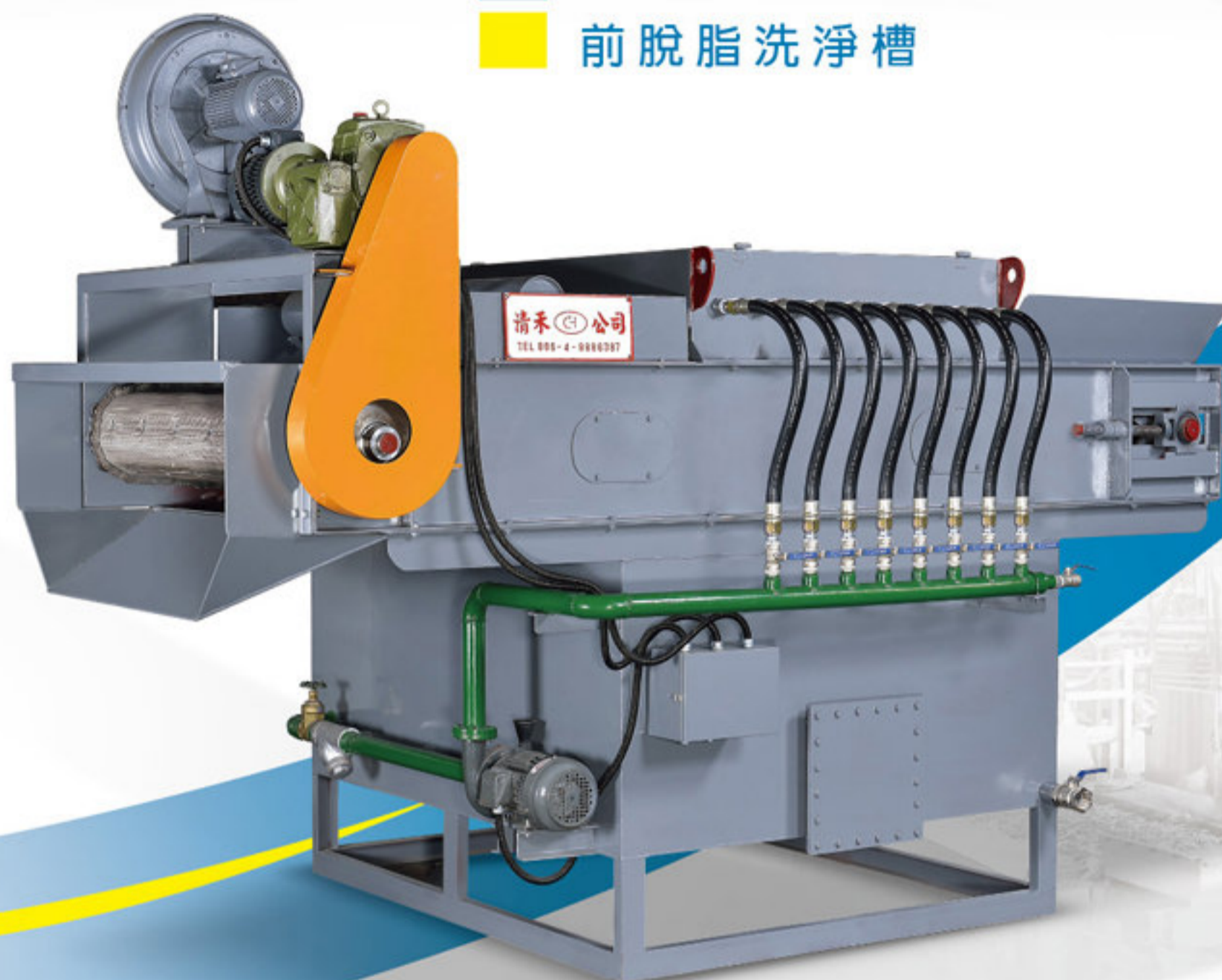


Applications 用途

- 運送小件處理物至脫油清洗機。
- 使處理物均勻進入爐內進行熱處理。
- For transmission of small parts to degreasing and washing unit.
- To assure the even dispersion of small parts during transmitting before entering the furnace for heat treatment.

FRONT DEGREASING AND WASHING UNIT

前脫脂洗淨槽



Feature 特點

- 利用滲碳爐的預熱區熱水器清洗乾淨，使水（清洗用）加熱，因而達到節省能源之目的。
- 配備油水分離機及強風吹乾設備。
- 用途：洗淨處理物並脫油。
- A preheating device is installed in the furnace to provide adequate amount of hot water to save energy.
- Equipped with oil/water segregator and blow dryer.
- Application : To remove and wash off greating parts.

型式 Model	網寬 Conveyer Width (m/m)	電力 Power (kw)	脫脂槽量 Capacity of degreasing Tank (L)	脫脂槽量循環幫浦 degreasing circulation pump (Hp)	脫脂槽外部尺寸 dimension degreasing tank(m/m)		
					長 Length	寬 Height	高 Width
CH-608A	600	20	1150	2	3500	1530	760
CH-808A	800	20	1350	3	3500	1530	760
CH-1008A	1000	20	1350	5	3500	1530	760

CONTINUOUS CARBURIZING QUENCHING FURNACE

連續式淬火滲碳熱處理爐



Feature 特點

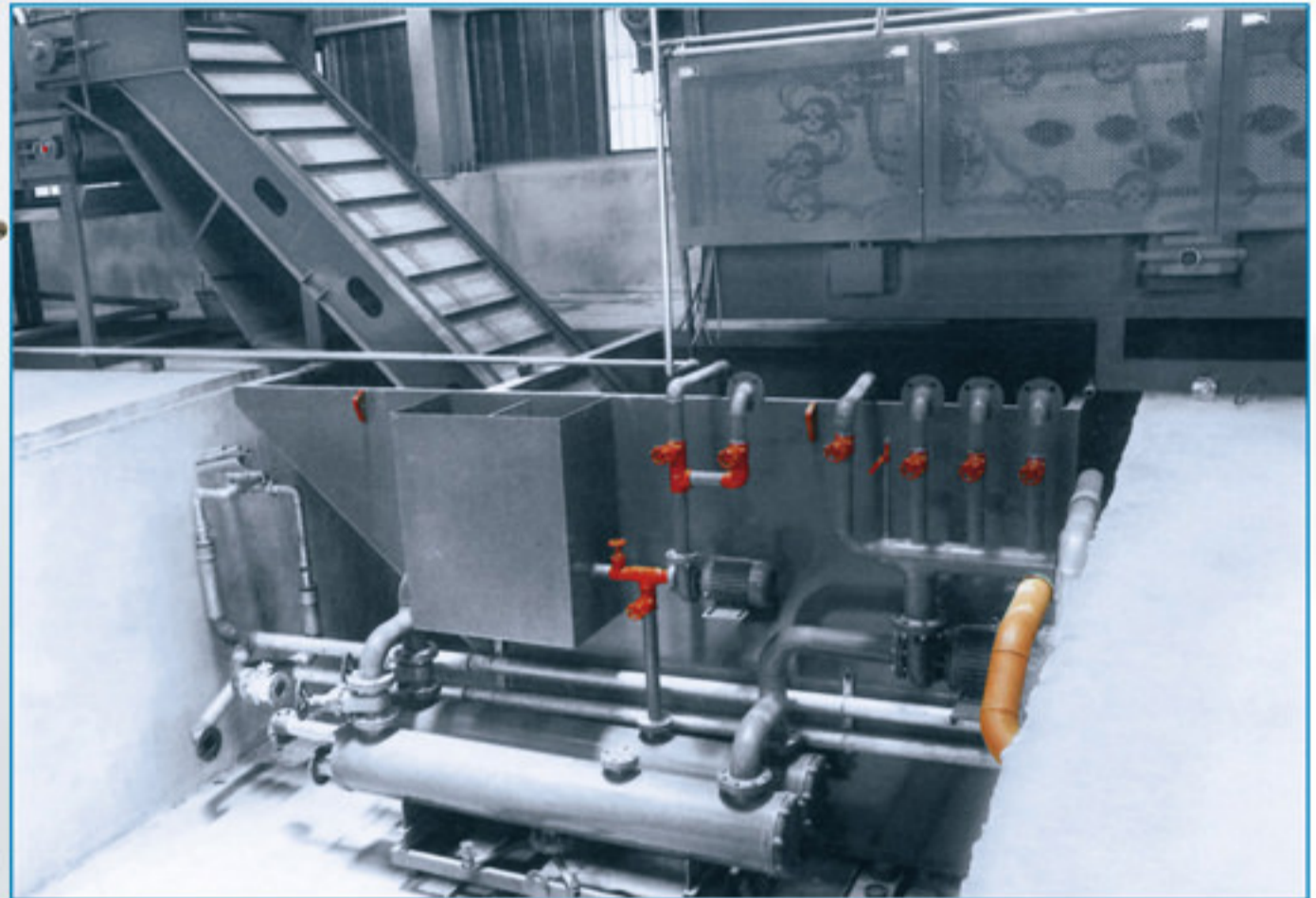
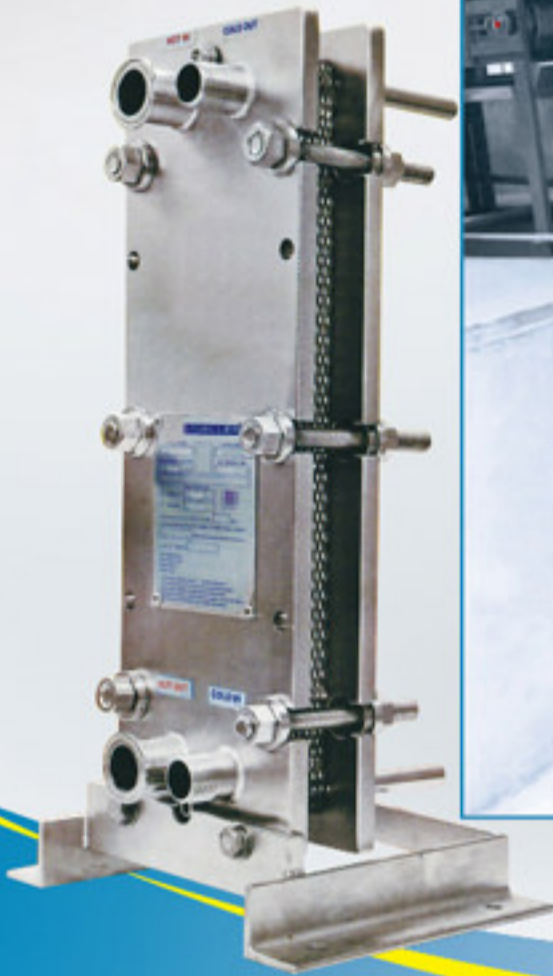
- 省電：使用質輕、高強度、高斷熱的保溫材料，可達電熱最高效率。
- 操作：自動化控制運轉，不需多人操作，節省人力。
- 品質：採多點式控制，溫度均勻，提高品質。
- 爐氣：可採用變成爐式，或用其他混合氣體，選擇性高，爐氣穩定，確保品質。
- 維修：採用網帶輸送，運轉平穩，處理物不易掉入爐內降低故障率，大部分零件組可不停爐更換，維修便利。
- 用途：機械零件、五金、工具的滲碳淬火熱處理（處理溫度最高920°C）
- Power: Use light weight, high strength, high insulation insulation materials, electric reach maximum efficiency.
- Operation: automatic control operation, no people to operate, saving manpower.
- Quality: adopt multi-point control, temperature uniformity and improve quality.
- Furnace gas: can be turned into the furnace type, or mixed with other gases, high selectivity, furnace gas stability and ensure quality.
- Maintenance: The mesh belt conveyor, smooth operation, easy to fall into the furnace treated to reduce the failure rate, most of the group from time to shutdown replacement parts, convenient maintenance.
- Uses: mechanical parts, carburizing quenching hardware, tools (maximum processing temperature of 920°C)



型式 Model	中高碳鋼一小時產量 Treating capacity/ Hour to middle or High carbon steel kg/hr	低高碳鋼一小時產量 Treating capacity/ Per hour to low carbon steel kg/hr	網寬 Conveyer Width (m/m)	爐內高度 Inside height (m/m)	加熱長度 Length of Heating section(m/m)	入口長度 inlet length (m/m)	電力 Power (kw)
CH-605	410-480	310-350	600	100	6000	3500	160-200
CH-805-1	510-570	410-460	800	100	6000	3500	225-250
CH-805-2	700-780	540-600	800	100	8000	3500	270-300
CH-805-3	1000-1100	800-900	800	100	10000	3500	360-400
CH-1005-1	1200-1300	1000-1100	1000	100	10000	3500	450-500
CH-1005-2	1500-1600	1200-1300	1000	100	12000	3500	540-600

QUENCHING COOLING OIL TANK

淬火冷卻油槽



Feature 特點

- 油槽的高性能熱交換器，能迅速的控制與調整油（水）溫度，使油保持在60°C至80°C間。
- 油槽的噴灑冷卻系統，能依處理物大小及厚薄，調整噴灑速度，達到一機多用途的目的。
- 油槽設有過濾設備，在作業時不致因雜物累積，造成冷卻器堵塞而喪失冷卻作用。過濾網採抽換式，清洗及更換容易。
- 用途：冷卻處理物，並保持冷卻油（水）在需要的溫度上作業，確保處理物的品質。
- Equipped with the high-efficiency cool/hot exchanger to monitor and rapidly adjust the temperature of oil (water). The temperature is maintained at 60°C-80°C for oil.
- The speed of sprinkle water is adjusted accordingly by the sprinkle-water cooling system to produce desired volumes of water as needed by treating parts in terms of their size variations.
- Installed in the tank, the filter will fend off accumulation of particles occurred during heat treating, and thus maximize the effect of the cooling tank. The filter is easy to clean and replace.
- Application : to maintain cooling oil (water) in desired of temperature to ensure the quality parts.

型式 Model	網寬 Conveyer Width (m/m)	電力 Power (kw)	油（水）槽量 Capacity of oil (water) tank (L)	油（水）幕簾 Oil (water) curtain (Hp)	油（水）循環幫浦 Oil (water) circulation pump (Hp)	脫脂槽外部尺寸 dimension degreasing tank(m/m)		
						長 Length	寬 Height	高 Width
CH-607	800	10	10700	2	5	4000	2000	1530
CH-807	1200	20	12600	2	7 1/2	4000	2000	1800
CH-1007	1400	20	12600	2	10	4000	2000	2000

REAR DEGREASING & WASHING TANK

後脫脂洗淨槽



Feature 特點

- 利用滲碳爐的預熱區熱水器使水（清洗用）加熱，因而達到節省能源之目的。
- 配備油水分離機及強風吹乾設備。
- 用途：洗淨處理物並脫油。
- A preheating device is installed in the furnace to provide adequate amount of hot water to save energy.
- Equipped with oil/water segregator and blow dryer.
- Application : To remove and wash off greating parts.

型式 Model	網寬 Conveyer Width (m/m)	電力 Power (kw)	脫脂槽量 Capacity of degreasing Tank (L)	脫脂槽量循環幫浦 degreasing circulation pump (Hp)	脫脂槽外部尺寸 dimension degreasing tank(m/m)		
					長 Length	寬 Height	高 Width
CH-608B	800	20	1150	3	3500	1530	1840
CH-808B	1200	20	1350	5	3500	1800	1840
CH-1008B	1200	20	1350	5	3500	1800	1840

CONTINUOUS HOT BLAST TEMPERING FURNACE

連續式熱風回火爐



Feature 特點

- 輻射體（加熱源）採上下排列設計，加熱溫度均勻，使用壽命長，故障率低。
- 爐內配備攪拌風扇，使爐內溫度保持均勻，處理物硬度平均。
- 用途：機械零件、五金、工具的回火處理（處理溫度最高650°C）
- The top-bottom design of the heater will keep the temperature in uniform and extend the service life of the furnace with lower possibilities of malfunction.
- The stirring fan is installed to maintain constant temperature in furnace and keep consistant hardness in treating parts.
- Application: Toprocess hardware, tools and other mechanic parts. (Maximum operation temp. 650°C)



型式 Model	網寬 Conveyer Width (m/m)	爐內高度 Inside height (m/m)	加熱長度 Length of Heating section(m/m)	入口長度 inlet length (m/m)	出口長度 Exports length (m/m)	耗電量 Power consumption (kw)
CH-609	800	100	6000	1500	1500	120
CH-809-1	1000	100	6000	1500	1500	130
CH-809-2	1000	100	8000	1500	1500	160
CH-809-3	1000	100	10000	1500	1500	170
CH-1009	1200	100	12000	1500	1500	294

AUTOMATIC TEMPERATURE CONTROL PANEL

溫度自動控制盤



Feature 特點

- 溫度控制和氣氛控制整合成一整，簡化作業程序。
- 溫度控制採矽控開關（SCR），能精確的控制溫度和時間。
- 使用精密的耐高溫測氧探頭及氣氛控制儀控制碳勢，保證處理物的品質劃一。
- 使用歐、日元件保證性能優異可靠。
- 用途：自動控制溫度和氣氛
- The integration of temperature and atmosphere control offers easier operation.
- The adoption of scr in temperature control will assure the accuracy of temperature and timing.
- Assembled with heat resistant instrumental panels to ensure the quality of treating parts.
- Top-quality components are used to increase the reliability of the system.
- Application: to control temperature and atmosphere in the furnace.



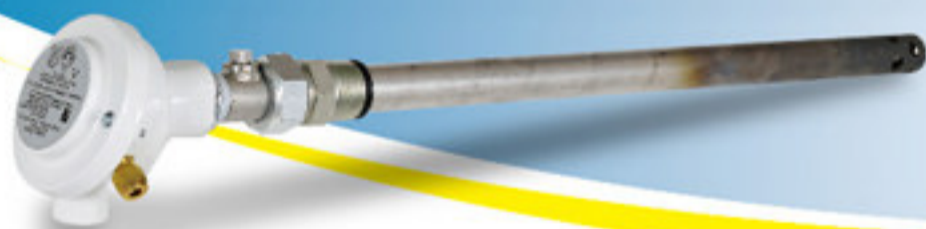
整套連續爐之產量及耗電量

型式 Model	中高碳鋼 一小時產量 One hour production of high-carbon steel (kg)	中高碳鋼 一個月產量 High-carbon steel Month yield(Tons)	低高碳鋼 一小時產量 Low High Carbon Steel One hour production (kg)	低高碳鋼 一個月產量 Low High Carbon Steel Month yield(Tons)	全套 總消耗電力 Complete set Total power consumption(kw)	總長度 The total length (mm)
CH-600	416-481	260-300	315-352	197-220	197-220 300/250	30115
CH-800-1	512-577	320-360	416-465	260-290	260-290 370/310	30115
CH-800-2	721-785	450-490	548-600	342-375	342-375 435/360	34115
CH-800-3	1002-1105	625-690	833-921	520-575	520-575 520/430	38115
CH-1000	1200-1300	750-810	1000-1100	624-686	870-930 740/790	45000

** 一個月產量已26天計算

O₂ AUTOMATIC CARBON POTENTIAL CONTROL SYSTEM

O₂碳濃度自動控制系統



Application 用途

- 自動控制爐內氣氛
- To control atmosphere in the furnace.

O₂ 碳濃度

1. 爐內碳素濃度連續測定
2. 穩定的氧化鋯元素
3. 碳素濃度感測儀每秒鐘顯示一次
4. 能精確顯示極低的氧分壓
5. 作業最高溫度能到2000°F (1093°C)
6. 減少積碳現象

O₂ SENSOR

1. Continuous Sensing of % Carbon in furnace
2. Stabilized Zirconium oxide element
3. One second response time from %carbon sensor
4. Accurate at very low oxygen partial pressures
5. Operates up to 2000°F (1093°C)
6. Minimum sooting

ENDOTHERMIC TYPE GAS GENERATOR

吸熱型瓦斯變成爐

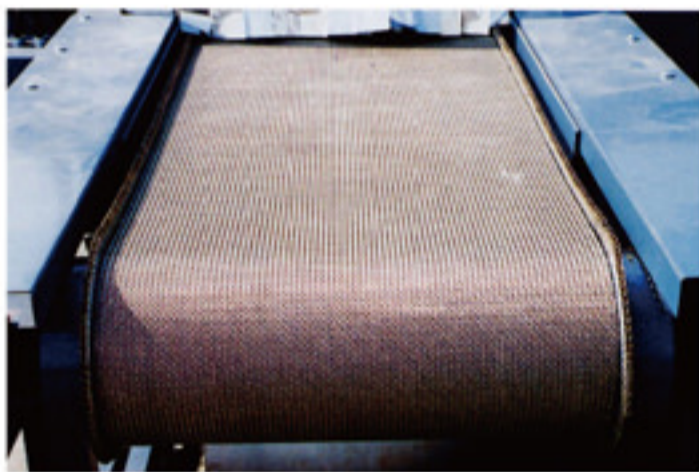


Features 特點

- 瓦斯控制保護系統，安全耐用，露點控制穩定，操作簡單，指示精確，並且與CO₂控制器聯結使用，達到自動控制的目標。
- 發熱氣體效率高，故障率低。爐室可以打開，便於保養與修護。
- 流量計及瓦斯開關都裝配在操作面板上，操作、控制及檢查均方便。
- 管路設計預留清除雜物接頭，便於清除雜物。
- 用途：將瓦斯經觸媒分解成RX氣體，作為淬火爐的處理物的保護氣體。
- The protection system of gas control is designed to provide safty, durability, and stability in dew point control. The CO₂ controller may be connected to the unit for automatic control purpose.
- The furnace cabinet can be opened for easy access in case maintenance and repair are needed.
- All meters, gauges, and switches are mounted on the panel for easy operation.
- Connectors are reserved in the pipe lines for easy cleaning.
- Applications: to provide RX gas for protection of the treating parts.

MAIN ACCESSORIES

主要零件



Conveyor Belt 網帶

使用進口先進國家SUS 310S 耐高溫不鏽鋼線，以重疊方式編織而成，品質高、壽命長，運送處理物平穩安全，不易掉入爐內，降低故障率。
用途：用於輸送處理物。

Of heat resistant stainless wire (SUS 310S), and woven in overlap, the conveyor is made to ensure the smooth running and to avoid the escaping of small parts during transmission.

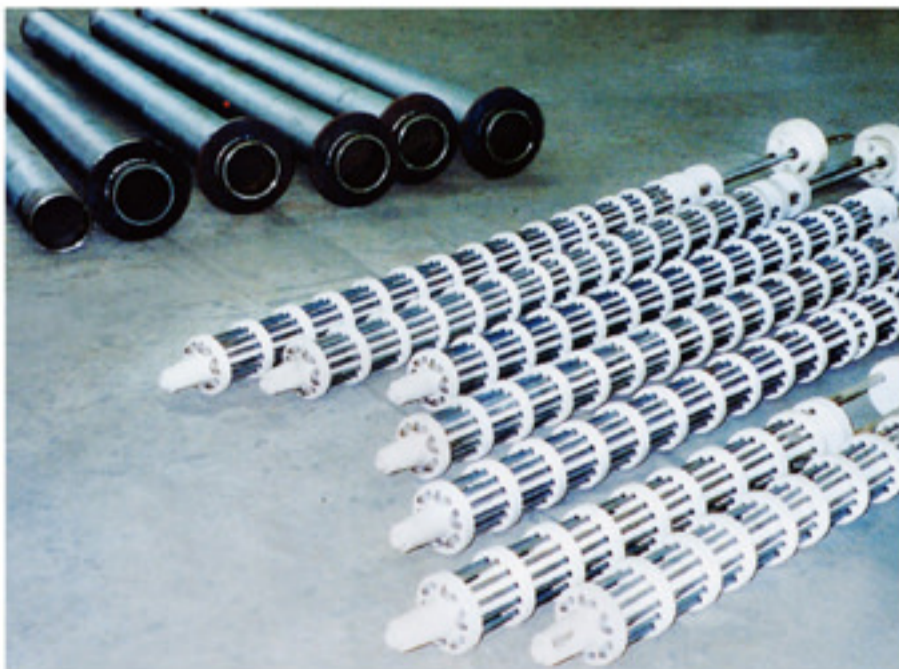
Applications: Used in purpose of transmitting treating parts.



Environmentally Chimney 環保煙囪

工件經油槽淬火及清洗槽清洗，有少量淬火油殘留在工件上，進入回火爐升溫後會產生大量的油煙引起廠內的空氣污染，為解決此環境污染問題，特別設計環保煙囪，將回火爐所產生之油煙從環保煙囪燃燒掉，減少工廠的空氣污染。

After quenching and cleaning workpiece, a small amount of residual quenching oil attached to the workpiece, Back into the Tempering Furnace to heat up after a lot of smoke generated air pollution caused by the plant, To solve this environmental issue special design of this environmentally chimney, smoke will be generated from the Tempering Furnace, reducing factory air pollution.



Radiation Tube 輻射管

進口歐、日耐高溫、高質量的材料製成，不但熱效率高，而且壽命長，更換容易（可不停爐更換）。

用途：產生熱處理所需的熱能。

Made of heat resistant steel pipe to ensure heating effect, and to prevent the possible deformation of the tube. (replace the radiation tube do not need stop the furnace.)

Applications: To produce the proper temperature needed in heat treating.

www.chinghair.com.tw



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