

Thermal Spray Specialist

Han-Tai concentrated in core technology of advanced thermal spraying with high quality of automation machining.....



通過ISO 9001 認證
Acquired ISO9001 certificate

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Bank Mega International Commercial, CN.Tp.HCM



漢泰越南一成員責任有限公司
HAN TAI VIET NAM CO.,LTD

www.han-taivn.com.vn

Technical Support for Surface Modification

首先要感謝廣大的客戶群對漢泰科技及其關係企業的產品及服務的支持與信賴。40年來，我們從焊接材料的生產而衍生到表面改質技術的領域與運用，提供給客戶生產效率的提升，降低巨大製造成本使客戶產出高附加價值的產品做出了一些貢獻。今後還是一本初衷以積極熱情及致力研發的精神與客戶變成夥伴共同開發及解決耐磨耗，耐腐蝕，環境保護及節省能源的表面改質技術戮力向前，進而達到貢獻社會的負責。

First of all, we must express appreciations to our respected customers who have been supporting & relying on our products and services to HAN TAI TECHNOLOGY CO.,LTD.

From producer of welding consumables then extend to surface-modification technology, we contribute a lot to the industrial fields for saving their cost, environmental protection & energy saving. In the future, we will make every effort focusing in technical research & development to meet our customers expectations.



首銳焊材工業股份有限公司
SOREX WELDING CO., LTD

創立於2004年台南市永康區資本額新台幣一億叁仟萬元，於2005年取得ISO9001認證。其主要生產製品為：碳鋼，高張力，不銹鋼，硬面等相關之特殊高合金鋼焊條與包藥焊線。與昆山京群焊材科技有限公司同為國際化焊接專業公司。

Founded in 2004, Tainan Yongkang, with NT \$ 130 million capital, got ISO 9001 certification in 2005. Main products: carbon steel, high tension, stainless steel, hard surface, and other related special high-alloy steel welding rod and drug packets. And together with Kunshan Gintune Welding Technology Co., Ltd. become the international professional welding company.

Tel: +886-6-2662289 - Fax: +886-6-2662279 - <http://www.sorex.com.tw>



昆山京群焊材科技有限公司
KUNSHAN GINTUNE WELDING CO., LTD

創立於2006年中國江蘇省昆山市，總投資美金叁仟萬元。其主要生產製品為：碳鋼，低合金鋼，不銹鋼等系列及其他特殊各種藥芯焊線，以及碳鋼，低合金鋼，不銹鋼，鑄鐵等系列之各種焊接材料。

Founded in 2006 in Kunshan City, Jiangsu Province, China, with a total investment of 30 millions US dollars, main products: carbon steel, low alloy steel, stainless steel and other special series of other various flux-cored wire.

Tel: +86-512-57687777 - Fax: +86-512-57687776
<http://www.gintune.cn> - E-mail: gintune@gintune.cn



昆山京揚焊材科技有限公司
KUNSHAN KINGO CO., LTD

創立於2011年中國江蘇省昆山市，資本額美金700萬元。經營項目為：焊接材料，焊接設備，焊材生產設備，冶金爐料，焊接用原材料及輔料之商業批發與代理，並提供相關電子產品之維修，以及相關配套服務或技術之諮詢。

Founded in 2011 in Kunshan City, Jiangsu Province, China, with a total investment of 7 millions US dollars, main products: welding materials, welding equipment, welding production equipment, metallurgical materials, agents and wholesale business for welding raw materials and accessories, and provide maintenance-related electronic products, and related support services or technical advice.

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力得威合金焊材越南責任有限公司
LEADERWELD ALLOY ROD VN CO., LTD

創立於2007年越南胡志明市，資本額美金45萬美元。經營項目為：碳鋼，高張力，不銹鋼，硬面等相關之特殊高合金鋼焊線。

Founded in 2007, Ho Chi Minh City, Vietnam, the capital of US \$ 450,000. Operating items: carbon steel, high tension, stainless steel, hard surface and other related special high alloy steel wire.

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漢泰科技股份有限公司
HAN TAI TECHNOLOGY CO.,LTD

創立於1983年台灣台南市, 資本額900萬美元. 經營項目: 各種耐腐蝕, 高溫, 氧化, 磨耗特性之工件再生及新承製, 硬面焊補, 高速火焰熔射, 粉末堆焊, 自容合金熱熔射, 金屬線熔射, 電漿熔射, 電漿粉末覆面焊接, 機械加工.

Established in Tainan City, Taiwan in 1983 with NT\$900 million capital. Operating projects: fabrication and recovery the surface of high temperature accessories, corrosion resistance, oxidation, hard surface welding, high-speed flame spray, powder surfacing, self-contained alloy hot-melt praying, metal wire spray, plasma spray, PTA, mechanical processing.

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漢泰國際電子股份有限公司
TOCALO & HANTAI TW CO., LTD

前身為漢泰科技股份有限公司, 於2011年將半導體, 光電, 陽極處理廠獨立成立為漢泰國際電子股份有限公司, 登記資本額新台幣五億伍仟萬元. 經營項目為: 光電, 半導體廠真空設備零組件的再生洗淨與特殊陶瓷塗層製作, 以及設備零組件之陽極處理與零組件加工製作.

Formerly known as Han Tai Technology Co., Ltd. in 2011 processing plant of semiconductor, optoelectronics, anode was established as TOCALO & HANTAI TW CO.,LTD, with NT\$ 550 million capital. Operating items: optoelectronic, special ceramic coating production, regeneration and cleaning vacuum equipment component, semiconductor, processing production and anodic treatment of equipment components.

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東華隆表面改質技術有限公司(廣州)
TOCALO & HANTAI CO., LTD

係由日本之TOCALO株式會社與台灣之漢泰科技股份有限公司, 於2005年共同創立於中國廣東省廣州市, 總資本額美金400萬元. 於2009年通過ISO9001認證. 其主要營業項目為: 提供鋼鐵, 電力, 汽車等骨幹產業且橫跨半導體, 液晶, 尖端醫療等專業領域之工件表面改質之綜合廠商.

Established in 2005 in Guangzhou, Guangdong Province, China, joint venture of TOCALO and HanTai Technology with a total capital of 4 million US dollars. In 2009, get the ISO 9001 certificate. Operating items: provide iron and steel, electric power, automobile and other key industries across the semiconductor, LCD, medical and the field of surface material modification.

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東賀隆電子有限公司 (昆山)
TOCALO & HANTAI (KUNSHAN) CO., LTD

係由日本之TOCALO株式會社與台灣之漢泰科技股份有限公司共同創立於2011年中國江蘇省昆山市, 資本額500萬美元. 經營項目為: 新型電子元件的開發與製造, 電子專用材料的開發與製造, 各種電子專用設備與配件的特殊表面處理, 表面改質及相關技術服務.

The joint venture of TOCALO and HanTai Technology established Tocalo & Hantai Co., Ltd in 2011, Kunshan City, Jiangsu Province, China, with a total capital of 5 million US dollars. Operating items: the development and manufacturing of new generation electronic components, the development and manufacturing of material using for electric, special surface treatment of electronic equipment and accessories, related technical services of surface modification.

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| 1983 本公司自瑞士P.T.公司進口第一套電漿噴焊設備 M-100，開始著手噴焊，硬面焊之技術開發，業務推廣。 | 1983 Import the first set of plasmas spraying equipment M-100 from Switzerland P.T. company. Starting to develop plasma spray & hard surfacing technologies and promote this field of business. |
| 1993 4月申請設立漢泰熔研股份有限公司，資本額新台幣二千萬元。 | 1993 Set up Han Tai Welding & Research Co.,Ltd with NT\$20 million capital. |
| 1994 3月正式遷入仁德新廠。 | 1994 Moved to current location in March and became the Approved Vendor for Defense Ministry in June. |
| 1996 11月與日本熔射業龍頭TOCALO公司簽訂鋼鐵技術與業務提攜合約。 | 1996 Signed the contract of technical and business cooperation with Japanese thermal spray leading company TOCALO |
| 1999 增資為新台幣八千萬元，添購HVOF熔射設備，大型CNC研磨機，ZAC處理爐，立式車床...等大型設備。2月與日本TOCALO簽訂半導體及LCD之技術與業務提攜合約。3月與日本FUJICO公司簽訂硬面技術與業務提攜合約。 | 1999 Increased capital to NT\$80 million, buying more equipments as HVOF spraying machine, big grinder CNC, treatment furnace ZAC, vertical lathe, and big size equipments... Contracted with TOCALO in Feb. to bring in technology for semi-conductor and LCD industries. Contracted with FUJICO for advanced hardfacing process in March. |
| 2000 11月通過ISO 9002認證，為台灣熔射業界之第一家廠商。同月再次通過國防工業廠商評鑑。 | 2000 Acquired ISO 9002 certificate as of the first company getting this approval in Taiwan. In the same month again evaluated through the defense industry manufacturers. |
| 2002 與寶鋼機械廠簽訂技術授權書。 | 2002 Technical authorization to Shanghai Baosteel Equipment Maintenance Co.,Ltd |
| 2003 7月通過ISO 9001認證。10月與TOCALO公司簽訂蝕刻裝置部品之熔射技術合約。 | 2003 Acquired ISO 9001 certificate in July. Contract of plasma etching parts parts spraying technical with TOCALO in October. |
| 2004 7月正式改名為漢泰科技股份有限公司，增資為新台幣1億元。10月科技二廠建設完成，提升為可處理至光電6代裝置之洗淨，熔射設備。 | 2004 In July, Han Tai Technology Co., Ltd was renewed, and increased capital to NT\$100 million. Expanded factory and more equipments of thermal spray & cleaning for TFT-LCD G6. |
| 2005 投入特殊製程之開發。8月與AMAT公司簽訂SERVICE AGREEMENT。9月與日本TOCALO公司合資成立中國“東華隆（廣州）表面改質技術有限公司”。10月與日本三惠工業所簽訂陽極處理技術合約。 | 2005 Extended R & D division for new advancing technologies. Contracted with AMAT USA & TEL Japan in August. Cooperated as partnership investing TOCALO & Han Tai Co.,Ltd in Guangzhou China. |
| 2006 1月增資為新台幣一億二千萬元。7月與日本TEL公司簽訂蝕刻裝置部品Y2O3及Al2O3熔射相關業務合作契約書。11月完成光電8代清洗廠及陽極處理廠。設立關係企業首銳焊材工業股份有限公司（台灣台南）與中國昆山京群焊材科技有限公司及越南力得威合金焊材責任有限公司成立。 | 2006 Capital increase to NT\$120 million Contracted with TEL for sputtering, etching parts by Y2O3 and Al2O3. Established new anodizing factory and TFT-LCD G8 cleaning plant. Established Han Tai Group, SOREX WELDING CO.,LTD & KUNSHAN GINTUNE WELDING CO.,LTD & LEADERWELD ALLOY ROD VIETNAM CO.,LTD |
| 2009 12月關廟硬面廠完成建設。 | 2009 In December, extended Guan-miao factory. |
| 2011 4月光電及半導體事業部獨立，另成立漢泰國際電子公司。 | 2011 Han Tai join venture with TOCALO to set up new company. TOCALO & HANTAI TW CO., LTD focus in service semicon and FPD field. |
| 2013 8月漢泰越南HTVC興建完成。 | 2013 Established Han Tai VN Co., Ltd |
| 2014 8月正式營業。 | 2014 In August, Han Tai VN Co., Ltd operated officially. |



國內各項ISO專利 ISO CERTIFICATE OF REGISTRATION

I. ISO 9001:2015 標準品質管理系統

ISO 9001: 2015 The Quality Management Systems of

II. ISO 14001 : 2015 勞動安全及行業健康管理系統

ISO 14001: 2015 The Enviromental Management Systems of

III. ISO 45001:2018 環保管理系統

ISO 45001: 2018 The Occupational Health and Safety Quality Management Systems of

IV. 5S 執行良好 5S Best Practise

公司願景

COMPANY VISION

和諧愉快的共識 經營成果的共享

WORKING TOGETHER, SHARING ACHIEVED RESULT

經營理念

MANAGEMENT CONCEPT

本公司二十多年來以先端的熔射技術為核心，並配套自動化高品質的機械加工，已為國內重大基礎產業如鋼鐵，石油化學，造紙，水泥，環保與能源等工業作出重大貢獻。

近年來本公司更以強勁的研發團隊及精密研發儀器快速響應高科技產業要求，研發高級化，高機能化及多樣之表面改質皮膜，配合精密清洗，清除粉塵等技術，已帶動此等產業迅速擴大及邁進成為世界舉動產業。

以“專業”，“團隊”，“信心”，“服務”四大經營理念驅使我們努力配合國內外重大客戶之需求，達到而超越客戶的滿意度正是我們追求的極致目標。

For more than 20 years, Han-Tai concentrated in core technology of advanced spraying with high quality of automation machining, contributing to fundamental industries mainly on iron & steel, petrochemical, paper makers, cement, environment protection and energy segment.

Recent years, our company expanded the strong R&D team who own precision laboratory instruments to meet the demands of high-tech industries and developed high grade, functional and versatile surface coating with precision cleaning technology. The technologies supported those high-tech industries growths smoothly and successfully in global market.

Han-Tai's 4 core beliefs "Professional", "Team", "Confidence" and "Service" drive us to execute how to meet customers demands and get beyond "Customers satisfaction" is always our ultimate Goal.

服務項目

SERVICE ITEMS

- | | |
|------------------------------|---|
| 1. 各種耐腐蝕，高溫，氧化，磨耗特性及不沾黏之工件再生 | 1. Refurbishing parts for wear resistance, corrosion resistance, heat resistance, oxidation, wear resistance and non sticking application |
| 2. 硬面焊補 | 2. Welding Surfacing |
| 3. 高速火焰熔射 (HVOF) | 3. HVOF(High Velocity Oxy-Fuel Spraying Process) |
| 4. 電弧熔射(ARC),自熔合金熱熔射, 金屬線熔射 | 4. ARC Spraying, Thermal Spraying, Wire Spraying |
| 5. 電漿熔射,陶瓷熔射,電漿粉末覆面焊接 | 5. Plasma Spraying, Ceramic Spraying, Plasma Transferred ARC(P.T.A) Overlay |
| 6. 精密機械加工:5米車床, 7米磨床 NC..... | 6. Precision Machining :5M Lathe, 7M (NC) Grinder..... |
| 7. 動平衡校正 | 7. Balancer Machine |
| 8. 各式輥輪及零配件製新 | 8. Manufacturing all kinds of rollers and key parts |
| 9. 各種表面機能改質之資訊 | 9. Changing feature of shaft surface by spray coating method |
| 10. 焊材粉末的銷售 | 10. Selling powder and welding rod |

品質系統

QUALITY MANAGEMENT SYSTEM

品質政策 (Quality Management Policy)

為使產品品質能符合客戶需求, 公司於2016年取得國內各項專利 品質管理系統認證ISO9001:2015, ISO14001:2004,OHSAS 18001:2007,5S 務使公司各項品質相關活動與作業均有所遵循。

In order to guarantee our quality satisfies all the requirements from our customers and ensure all the quality-related standards obeyed by Han Tai people, we applied for and acquired the certificate of quality management as ISO 9001:2015, ISO14001:2004, OHSAS 18001:2007, 5S. in 2016



特殊鋁材、鋼鐵廠特殊合金輥輪、代理銷售與服務

SPECIAL MATERIALS, SPECIAL ALLOY ROLL FOR STEEL MILL PLANT, SALE AGENT AND SERVICE

特殊合金離心鑄造產品, 包括鋼鐵廠之連續退火線爐輥、輻射管、連續鍍鋅線之鍍槽內輥輪及熱軋線加熱爐之滑塊 SKID RIDER 等。

Specializing in alloy centrifugal casting products, including continuous annealing furnaces for steel mills, radiant tube, plating roll tank in continuous plating chain and hot-rolled chain of heating furnace slider (SKID RIDER).



沉浸輥
Sink rollers



爐輥
Hearth Rollers



各種焊材銷售
Sales of various welding rod



各種熔射粉末銷售
Sales of spraying and welding powder



加熱爐用滑塊
Skid Rider For Slab Reheating Furnace



輻射管
Radiant Tube

紙廠單筒烘乾輥(YANKEE ROLL)現場施工 On site job of (YANKEE ROLL)construction – Paper Mill

利用自動化系統,縮短施工期,並透過熔射製程,提升客戶產品的品質與工件使用壽命
To apply the automated system, decrease the time of processing,improve production quality and using in working through Spraying process in order to prolong the longevity.

實施熔射的優點 ADVANTAGE OF SPRAYING

鋼板捲圓對接銲的烘乾輥 Yankee roll (welding method)	鑄造的烘乾輥 Yankee roll (Casting method)
經由提高表面硬度解決刮刀帶來的損傷。 To improve the surface hardness for scratch resistance when contact with scraper.	解決因鑄造缺陷 (砂孔)所造成的鉤傷或孔洞。 To solve the casting defects (pin hole) caused the scratches or holes.
經由減少斷紙的次數可提升生產效率與提高抄速 To increase production efficiency and improve speed, reducing the number of broken paper.	經由研磨周期的延長可降低維修費用。 Through prolonged grinding cycle can reduce maintenance costs.
刮刀磨耗量會變少, 降低刮刀的成本。 Abrasion of scraper will be reduced, reducing the cost of using scraper.	經由解決烘乾輥表面的磨耗可以生產厚度均勻的紙張 To solve abrasion casting roll, can produce according to evenly thickness of paper.
可以生產出與鑄造烘缸同等的衛生紙。 Can apply as foundry in production of toilet paper.	若是磨耗至接近鑄造母材厚度的使用極限時, 可以再生。 If abrasion is near the limit of casting the base material thickness, can be regenerated.



自動研磨與拋光
Automatic grinding and polishing

自動熔射
Automatic spraying



流程圖 (Flow Diagram)



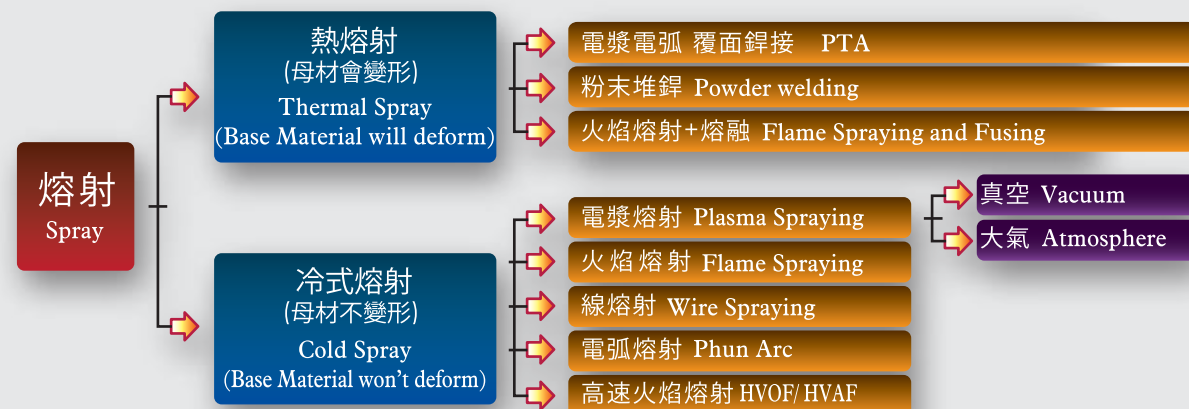
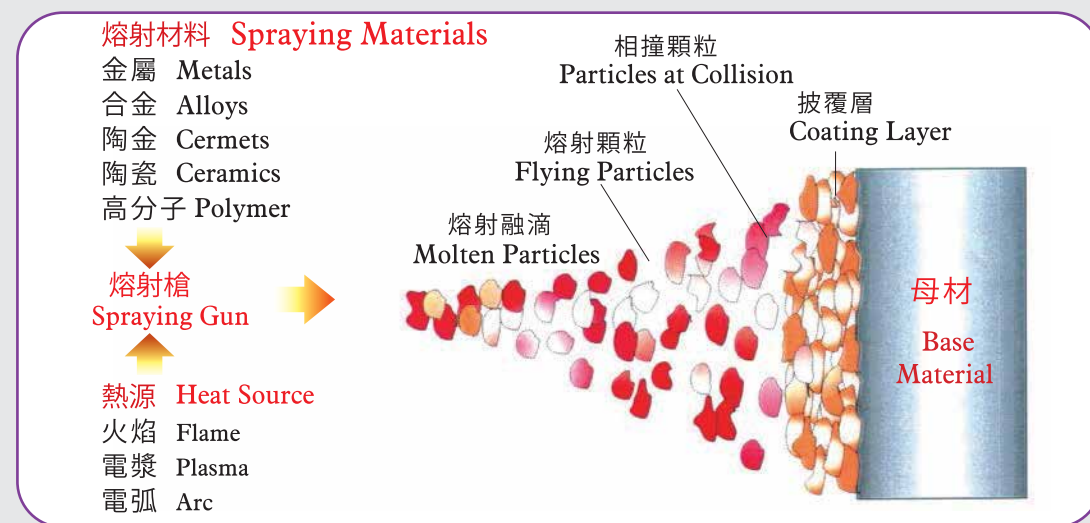
熔射技術介紹

SPRAYING TECHNOLOGY INTRODUCTION

熔射技術 (Thermal Spraying) 是利用火焰, 電弧或電漿等能源將粉末或線狀料熔融並將其噴塗在基材表面, 凝固形成熔射塗層 (Sprayed Coating) 的一種表面技術。如圖解說明。熔射技術領域中計有火焰熔射, 電弧熔射, 電漿熔射, 及高速火焰熔射等不同的方式, 如表所示。可被用來作熔射塗層的材料種類有金屬, 合金, 陶瓷, 瓷金及塑膠等

The thermal spraying was a technology that injects the powder or melted wire on the surface of substrate by flame, arc or plasma, and the sprayed coating will be deposited on the substrate. The drawing is shown below. Thermal spraying included: flame spray, arc spray, plasma spray and HVOF (High Velocity Oxyfuel Flame) process, the sheet is shown below. The coating material could be metal, alloy, ceramic, cermet and polymer.

熔射示意圖解 Principles of Thermal Spraying

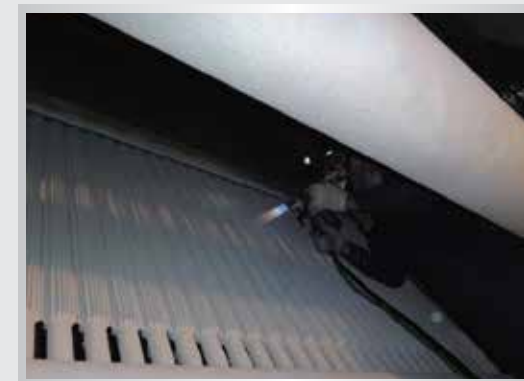


ORV Panel 鰭管熔射工程：

ORV主要是用海水作為熱源, 當液態天然氣LNG經過管排並與海水流過管排表面, 使液態天然氣透過海水升溫成氣態天然氣NG; 經過特殊熔射及化學處理, 可以增加氣化器壽命。

ORV Construction：

The ORV uses seawater as a heat source. While LNG goes up inside the panels and seawater flows down over the panel surface, LNG is heated by seawater and converted to gas. Through coating special material and chemical treatment can increase the tube life of ORV.



ORV Panel 鰭管熔射工程 (ORV Construction)

紙廠捲紙軸現場施工：

利用自動回砂系統, 自動熔射系統, 現場施工工期短, 低污染, 不影響工廠其它設備生產。

On site job of winding roll of paper and pulp plant：

To shorten maintenance time, on site processing with vacuum blasting & thermal spray coating is available.



複捲軸施工
(Spraying on Winder Roll)

現場施工 ON SITE ENGINEERING WORK

現場施工案例 (On site Cases)

汽電共生廠熔射：

自1990年起，全世界即普遍採用熔射法於爐管表面披覆耐蝕鎳基合金或陶金材料，這之間技術不斷的精進演變，目前高速火焰熔射製程已成汽電共生鍋爐爐管熔射技術的主流，本公司更是台灣地區施工實績最多的廠家，工程品質廣受客戶好評。

Thermal spray on boiler tube in cogeneration plant：

Since 1990, boiler tubes had been coated widely with Ni-alloy or cermet materials by HVOF process, our company has been worked for many Cogeneration power plants.

鍋爐爐管熔射



鍋爐水管牆熔射
(Water Wall Tube HVOF Spraying)



自動化熔射
(Spraying by Automatic Traveling Machine)



吹灰口管排
(Gas pipe)

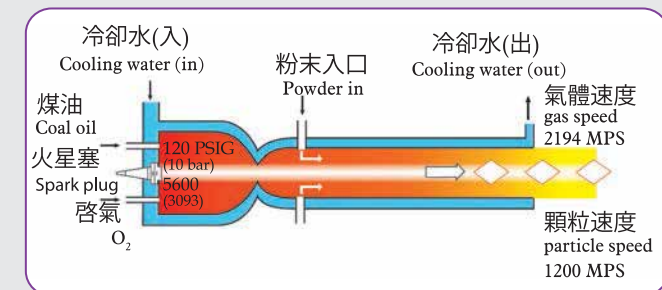


爐管施工
(Furnace Tube Construction)

熔射 THERMAL SPRAYING

高速火焰熔射

- * 特別是碳化物瓷金材料的耐磨耗性皮膜的形成，更能發揮功用。
- * 粉末熔射材料以超過速度衝擊基材，故可形成非常緻密的高密著力皮膜。
- * 用來取代鍍硬鉻已成趨勢。

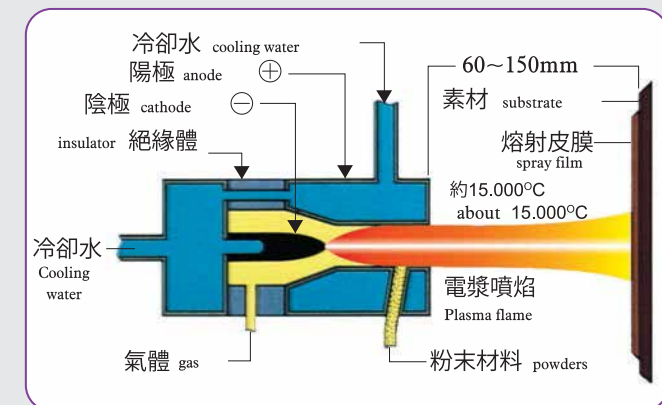


High Velocity Oxy. Fuel

- * Especially the coating formed for abrasion resistant on carbide cermets material.
- * The powder material would be hit the substrate through super sonic, speed, under this condition, a meticulous adhesive coating would be produced.
- * This is a trend about replacement for hard chrome plating.

電漿熔射

- * 電漿焰溫達 15,000°C，熔射材料廣泛。
- * 熔射皮膜細緻，陶瓷塗層可耐熱，耐化學腐蝕。
- * 有氬氣保護對被熔射物氧化或變質極少。
- * 被熔射物可控制在 200°C 以下施工。



Plasma Spraying

- * The temperature of plasma could be reached 15,000°C
- * The coating surface is fine and ceramic coating can anti-heating and anti-corrosion.
- * Ar gas can prevent the coating material from oxidation.
- * Substrate can be control heated temperature less then 200°C

熔射 THERMAL SPRAYING

金屬線熔射

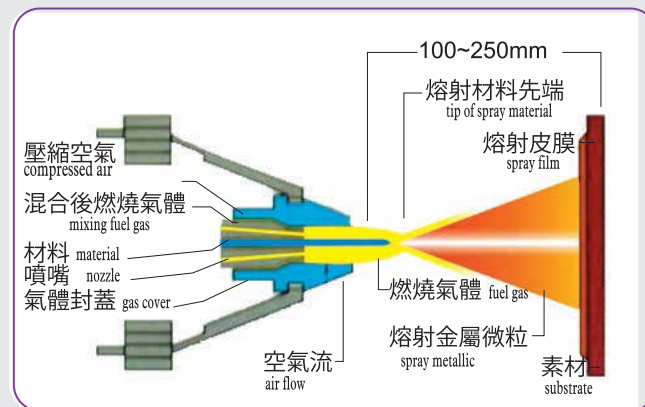
Flame Wire Spraying

- * 採用低溫熔射, 被熔射物不變質, 不變形.
- * 比電弧熔射表面更細緻.
- * 常用為工件尺寸復原用途



Flame Wire Spraying

- * The operation is under the low temperature, substrate won't be deteriorated and changed.
- * The surface would be less coarser than arc spraying method.
- * Frequent used for dimension restoration



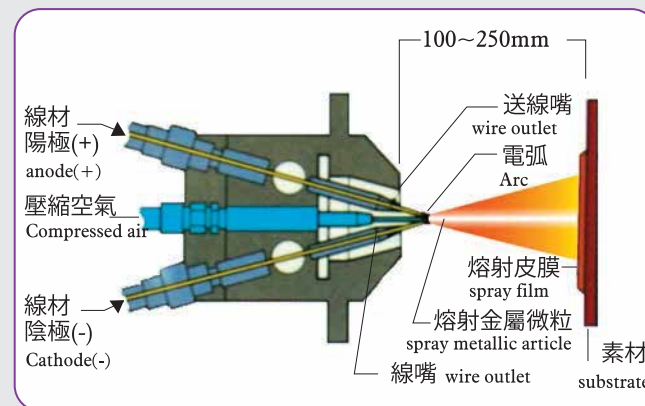
電弧熔射

- * 比金屬線熔射之密著力, 抗張力強.
- * 熔射堆積速度快, 可做大面積熔射.
- * 線材限於導電才可熔射.



Arc Spraying

- * The bonding strength would be higher than flame wire spraying.
- * The spraying deposition speed is fastest and is very suitable for wide area.
- * Spray Materials are constrain should be conductive.



能源、水泥、磁磚業應用 ENERGY, CEMENT, TILE INDUSTRY

能符合能源產業第一級的品質保證

First-class Quality Assurance for Energy Industry

即使是對品質要求極為嚴格的發電及水泥業, 依然可使用硬面鋅或熔射等方式來維修粉碎煤炭或石灰石作業中而磨損的零件。本公司應用潛弧鋅、CO₂鋅及電漿電弧覆面鋅(PTA)等方式及獨自開發的各種耐磨堆鋅材料, 從新產品到再生鋅補以延長零件的使用壽命, 維持正常穩定的運轉。

For the severe abrasive wear in environment such as coal fired power plant or cement plant, Hardfacing overlay or thermal spraying process are suitable for the worn parts repair. We had developed various hardfacing materials and combined With SAW, GMAW, PTA etc. process on the new or worn parts to extend service life and keep stable operation.

能源產業代表性應用例

Typical Application for Energy Industry

- 磨煤輪 (Roller Tire)
- 喉塊 (Plate)
- 耐磨板 (Table Segments)
- 預碎機輥輪 (Roller Press)
- 油氣內管防腐蝕鋅接 (Oil & Gas Pipe)
- 各種爐管 (Boiler Tube)
- 泵浦軸套 (Pump Sleeve)
- 排風機葉輪 (Fan Blade for Blower)



大型PISTON噴焊再生
PISTON (big form)
recoating



預碎機輥輪
(Roller Press)



大型PISTON噴焊施工現況
PISTON (Big form)
Coating Processing



磨煤輪 (Roller Tire)



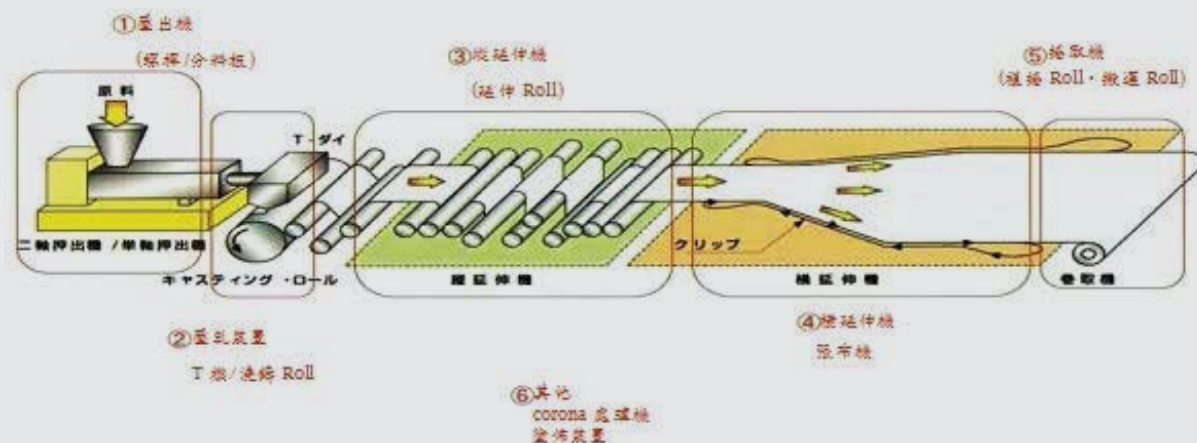
磨煤輪 (Roller Tire)



磨煤機耐磨環
(Segments for Coal Crusher)

鏡面輥拋光 POLISH SURFACE ROLL

利用自動化七米NC磨床,達到令人驚嘆的表面品質,粗度可達到 $\leq Ra0.02$
To use the automated function of 7M lathe, we can reach to the best quality of surface roll, roughness $\leq Ra0.02$
幫助客戶提升產品質量,生產更高品質的薄膜產品
To help customer to improve the quality's product, manufacture film product with high quality.



薄膜生產流程 Film production process



薄膜產線鏡面輥輪生產應用
Application for production line of mirror surface roll



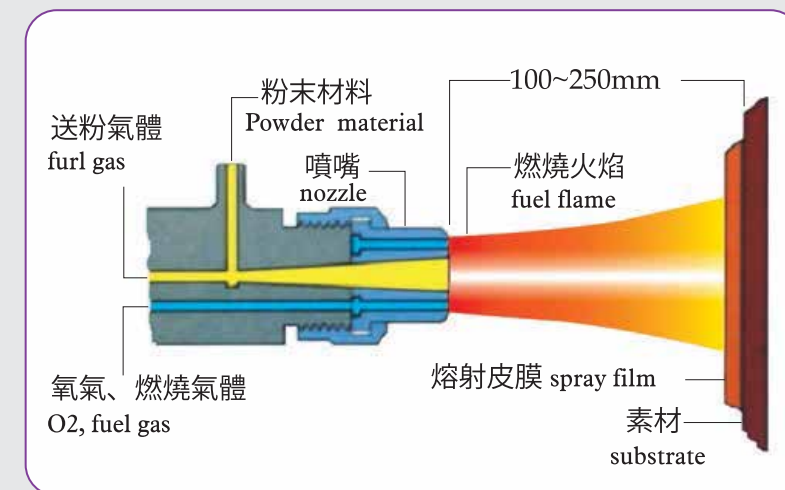
鏡面輥輥面近拍
Mirror surface Roll (close-up shot)



鏡面輥機台上加工
Machining mirror surface roll

粉末式火焰熔射

- * 常用來熔射自熔合金材料.
- * 熔射後須在經重熔處理使塗層
- * 與材料形成冶金式結合.
- * 皮膜耐磨耗, 耐腐蝕及耐高溫
- * 氣化性能優良.



POWDER SPRAYING

- * This method is always for self-fluxing alloy material.
- * The re-melting is necessary, this way could make the coating and substrate bonded with metallurgical.
- * The coating will reach the properties of anti-abrasion, anti-corrosion and anti-oxidation with high temperature.

硬面鍍補 HARDFACING



潛弧鍍 (Submerged Arc Welding)



明弧鍍 (Open Arc Welding)



氣鍍 (Oxyfuel Gas Welding)



氬鍍 (TIG)

機械加工 MACHINING



7米外圓磨床NC
(7M (NC) Cylinder Grinder)



1米磨床 (1M Grinder)



5M車床 (5M Lathe)



1米車床 (1M Lathe)



4米車床 (4M Lathe)



動平衡 (Balancer Machine)



壓光輥 (Calender Roll)



捲紙輥 (Winder Roll)



塗佈輥 (Gate Roll Coater)



網輥 (Wire Roll)



熱分散壓輥螺旋桿
(Disperser Screw)



散漿刀盤 (Pulper Rotor)

造紙業應用 PAPER INDUSTRY

製程愈傾向高速化及省力化，愈需要維持零件部品的品質安定性，造紙機械的各種部品，多數要求能長期維持穩定摩擦力以避免纖維被拉斷，經過多年的研究開發，使用陶瓷(ceramic)、瓷金(cermet)等的皮膜，能符合不同客戶的需求。

Paper machines require high running speed. The mating parts need stable friction and wear resistant properties. We had developed successfully ceramic or cermet coatings to fulfill various customer requirements.

造紙業代表應用例

Typical Application on Paper & Pulp Industry

壓光輥 (Calender Roll)
捲紙輥 (Winder Roll)
塗佈輥 (Gate Roll Coater)
帆布輥 (Canvas Roll)
網輥 (Wire Roll)
瓦楞輥 (Corrugating Roll)
破碎機螺桿 (RS3B)
散漿刀盤 (Pulper Rotor)



抽吸伏輥 (Suction Couch Roll)



瓦楞輥 (Corrugating Roll)

加工技術：

車削, 研磨, 拋光.

Technics of Machining :

Turning, grinding, polishing.

加工型式：

細/粗溝, 螺紋, 螺牙, 中高, 鏡面, 霧面

Type of Machining:

The fine or coarse groove, the thread, the whorl, crown, mirror surface and matted surface.

附加機能

Additional Function

在這個技術和服務導向的年代, 漢泰致力於滿足客戶的需求, 包含抗熱黏著, 抗沾黏, 耐腐蝕, 耐高溫, 耐磨耗, 耐沖蝕, 絕緣, 絕熱, 磁性, 導電及各種表面粗糙度的塗層等, 研發高效率低污染的製程, 藉由各種陶瓷 / 合金 / 金屬噴焊的塗層來取代高污染的電鍍製程, 也為我們的地球盡一份心力!

In this era of technics and service-oriented, Han-Tai extremely makes satisfaction for all clients, such as adhesion resistant, abrasion resistant, corrosion resistant, high temperature resistant, electric insulation, the thermal barrier, the magnetism, the electric conduction and the coating for different surface, researching the process for high efficiency and lower pollution, for our environment protection, we replace high pollution of plating process by ceramics/alloy/metal spraying coating.



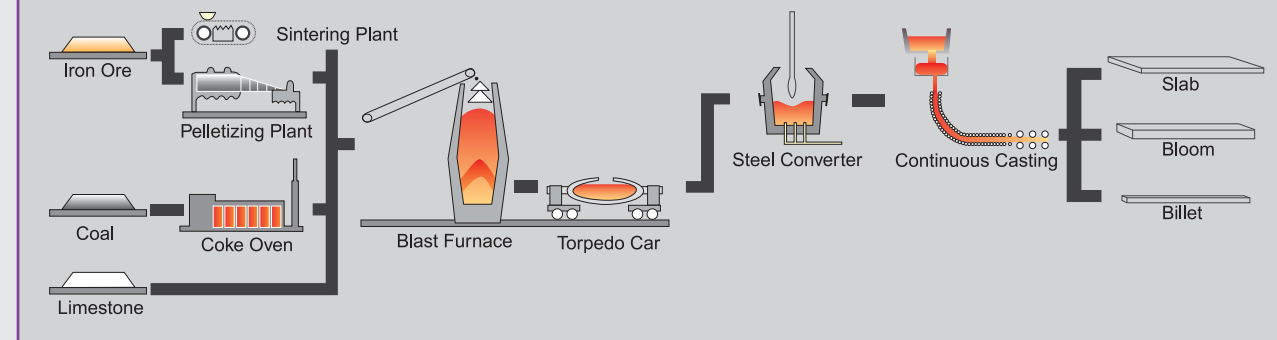
材料超過一千種以上. 用途能夠幾近無限可能的開發.
Over 1000 materials for applying

應用例
Application

鋼鐵業應用

IRON & STEEL INDUSTRY

連鑄 / 高爐



高爐與連鑄生產線一向相當嚴苛，表面改質能改善高溫沖蝕及融損等問題，進而延長設備壽命及提高生產品質。

Blast Furnace and Continuous Casting is always in severe circumstance, but the coating can improve the problem of heat washout and erosion. Therefore this technology can prolong the equipment life and promot the quality of product.

煉焦／燒結工廠代表性應用例

TYPICAL APPLICATIONS FOR COKE OVEN AND SINTERING PLANT

CDQ設備爐管 (Boiler Tube)

排風機葉片 (Fan Blade for Blower)

輸送帶 (Conveyor) 用滑輪 (Pulley) 等

大爐條 (Crushing Plate for Sinter of Breaker)

鬼齒 (Crushing Blade for Sinter of Breaker)

羽口
(Water Cooled Tuyser)



CDQ設備爐管
(Boiler Tube)



大爐條 (Crushing Plate for
Sinter of Breaker)



鬼齒 (Crushing Blade for
Sinter of Breaker)

連鑄線等代表性應用例
Typical application for C.C. line

連鑄輥 (C.C Table Roll)



連鑄輥 (C.C Table Roll)

化纖業應用

TEXTILE, CHEMICAL FIBER INDUSTRY

紡織、化纖業代表性應用例

Typical Application on Textile, Chemical Fiber Industry

張力輥 (Tension Roll)

牽伸輪 (Draw Roll)

分離輪 (Separator Roll)

絲導 (Guide Pins)

SR輪
(Separator Roll)

絲導輪
(Textile Guide Roll)

絲導桿
(Guide Pins)

牽伸輪
(Draw Roll)



IDF葉輪 (IDF Impeller)



柱塞(PISTON)

石化業應用

PETROCHEMICALS INDUSTRY

滿足石化業設備保養維護的需求

Repair & Maintenance Requirements

在各種泵浦，閥，壓縮機等傳動部品之表面上發揮NiCr系及CoCr系的超合金或陶瓷塗層優越的防護力，延長使用壽命並大幅減少維修次數。

For prolong life & reduce (fewer) repair frequency. Coating with Ni-Cr and Co-Cr base alloy or ceramic materials on pump, valve, compressor & running parts of equipments are needed

石化業代表性應用例

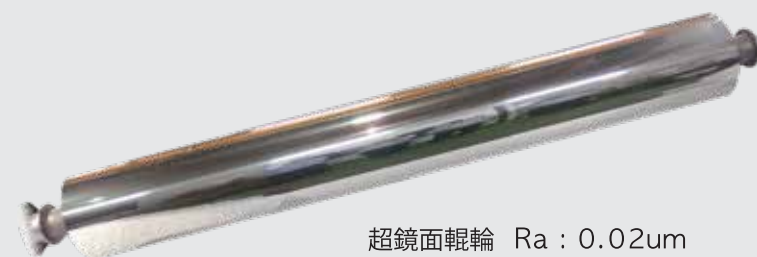
Typical Application for Petrochemicals Industry

高壓壓縮機用活塞桿 (Piston Rods of Compressor)
 閘閥 (Gate Valve) 球閥 (Ball Valve) 及其他各種閥類部品 (Other Valves)
 各種泵浦部品 (Pump Components)
 押出/射出螺桿 (Injection / Extrusion Screw)
 蛇泵轉子 (Snake Pump Rotors)
 鏡面軋 (Mirror Finished Rolls) 粗度值Ra0.02 μ m)
 臥式離心機 (Horizontal Centrifugal)
 其他 (Others)

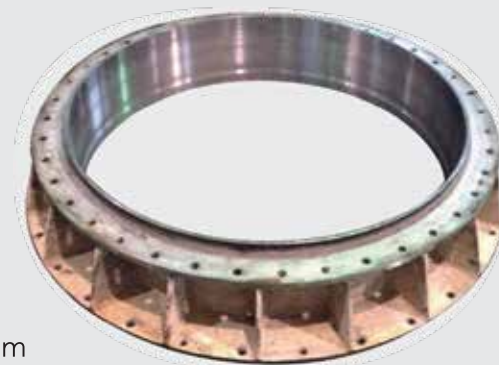
高壓壓縮機用活塞桿
(Piston Rods for Ultra High Pressure Compressor)



蛇泵轉子
(Snake Pump Rotors)

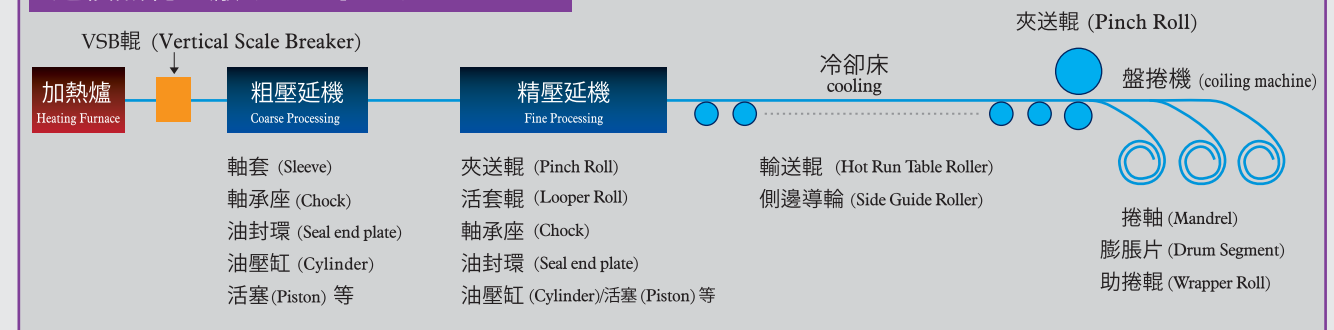


超鏡面軋輪 Ra : 0.02 μ m
Mirror Surface Rolls Ra: 0.02 μ m



乾燥機軸套內徑 1400mm
(Dryer Sleeve I.D. 1400mm)

連續熱軋工廠 (Hot Strip Mill)



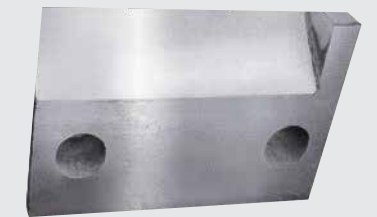
在連續熱軋產線上的各種軋類，軸承座，轉動件的表面改質，本公司充分利用各類迎面技術，徹底改善了工件壽命及品質問題，以噴焊代替焊補，以噴焊代替電鍍是世界環保趨勢，本公司累積多年的經驗，是您最值得信賴的夥伴。

In the hot strip mill, there are many wear, impact, thermal shock and oxidation problems happen on the rolls, chock and rotating parts, we can select appropriate thermal spraying or welding overlay process to improve the surface qualities and service life.

鋼捲／棒鋼及線材工廠的代表性應用例

Typical Applications For Strip, Bar & Wire Mill

導輪 (Guide Roller)
 熱剪刀 (Hot Shear)
 各類輸送軋 (Table Roller)
 夾送軋 (Pinch Roller) 等



伸線軋 (SPinning wire roller)

熱剪刀 (Hot Shear)



導輪 (Guide Roller)



導輪 (Guide Roller)



盤型軋
(Disc Roll)

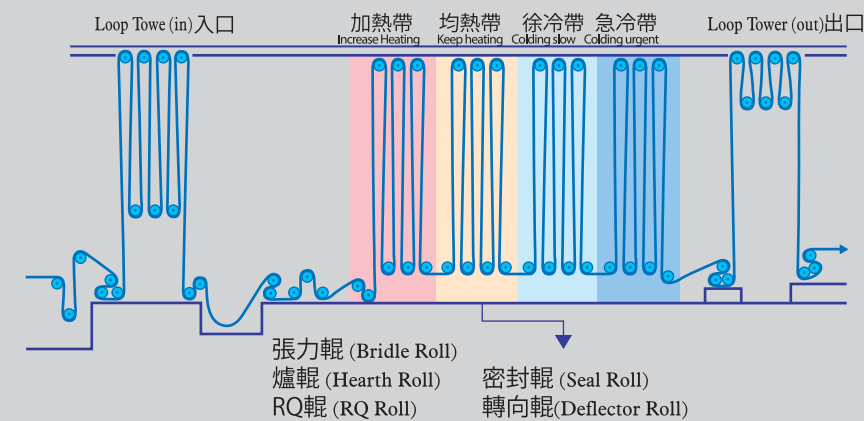


活套軋
(Looper Roll)



邊導軋
(Side Guide Rollers)

冷軋鋼板連續退火線 Cold Strip Mill (Continuous Annealing Line)



在連續退火線的鋼帶精整工程，
解決鋼帶微小擦傷的最佳方法

The best method to solve cold
strip surface sliding wear
problem for the continuous
annealing line.

在退火爐內，有鋼帶通過的爐輥必須具有適當的磨擦力及抗異物附著性(build-up)，經過精心挑選的材料，如CoCr系合金、陶瓷及瓷金(cermet)等的皮膜，在長期使用下可分別滿足生產高強度鋼帶等製程的不同要求。

The furnace rolls require appropriate friction and anti build-up properties, we had developed different coating such as CoCr alloy, ceramic and cermet to meet corresponding furnace section, even for high tensile strength strip productions.

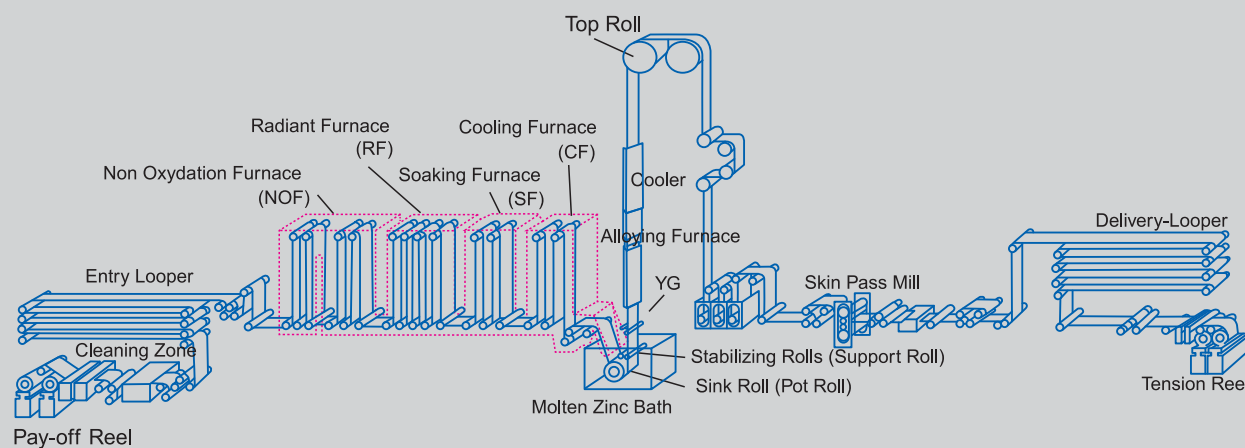


連續退火線輥輪(Cr₃C₂ Cermet)
Hearth Roll for CAL or CAPL



盤捲機膨脹片(WC cermet)
Drum Segment

連續熱浸鍍鋅線 (CGL)(Typical Layout of Continuous Galvanizing Line)

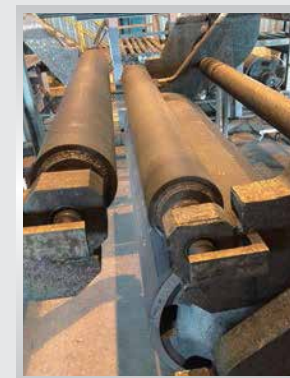


即使在熔融鋅液和PH值在1-2間的強酸溶液等嚴苛環境下，NiCr系 / CoCr系合金，陶瓷（Ceramics）和瓷金(Cermet)的皮膜，可維持生產高級鍍面鋼板的穩定性。

Even in the molten Zinc pot or PH value 1~2 strong acid solution environments, NiCr base / CoCr base alloy, ceramics and cermet coatings can resist severe corrosion & wear, and keep coated strip with the best quality.



沈浸輥 (Sink Roll)



穩定輥 (Stabilizing Roll)



氣刀 (Air Knife)

抽鋅幫浦 (Snout Pump) 零件



水淬輥 (W.Q.S. Sink Roll)



導槽 (Snorkel))



軸套 (Sleeve)



軸套 (Sleeve)



軸套 (Sleeve)



耐磨塊 (Liner)