



河北省冀東水泥廠

JIDONG
CEMENT PLANT

企業精神

ng Cement Plant

**開拓創新
愛國奉獻**

**EXPLOITE BRAVELY AND
BUILD NEW
BE PATRIOTIC AND OFFER
MORE**







中國華北地區最大的水泥供應商

THE BIGGEST CEMENT SUPPLIER IN HUABEI AREA OF CHINA

座落在河北省唐山市新區的冀東水泥廠，是我國八十年代建成的大型現代化水泥生產企業。成套設備從日本引進，具有當代世界水泥生產的先進技術水平。其特征是：熟料煅燒採用窑外分解新工藝，質量好，產量高；石灰石在礦山破碎後用長達8.4公里的運輸帶直送廠區；原燃材料均經大型預均化庫均化處理，保證了產品質量的高度穩定；大型生產設備由電子計算機，可編程序控制器，自動化儀表和先進的計量設備構成的網絡進行控制，實現了工藝過程自動化；完備的現代化收塵系統，使工廠變成了美麗的花園。

工廠目前裝備了一條生產工藝綫，日產熟料4000噸，可年產硅酸鹽水泥129萬噸。工廠佔地面積400公頃，建築面積22萬平方米。

工廠自一九八五年投產以來，以優質高強度“盾石”牌水泥享譽京、津、唐、秦地區，並廣泛博得世界各國和地區客商歡迎。

Jidong Cement Plant is situated in the New District of Tangshan City in Hebei Province. It is a large-scale modernized cement production enterprise built in the 1980s. The complete sets of equipment are introduced from Japan. Jidong Cement Plant is now operating with advanced technology of current international level. Its main features are as follows: Clinkers are calcined with new technological process decomposed outside of the kiln, by so doing, better quality and more products can be achieved. The crushed limestones are transported from the mine to production plant through a long belt conveyor 8.4km in length. In order to keep high stability of product quality, the all kind of materials are mixed full at large mix bed and the raw materials are homogenized in homosilo. The large-size production equipment controlled by a network of computer, automatic instruments and advanced measuring equipment accomplished automation of the technological process. The plant is as beautiful as a flower garden as a result of the perfect modern dust-collecting system working well.

At present equipped with one line of clinker production capacity of 4000T/D, the plant was able to produce silicate cement of 1.29 million tons a year. The plant occupies an area of 400 hectares and has a building area of 220 thousand square meters.

Since Jidong Cement Plant was put into production in 1985, it has been well-known with the high-quality "Dunshi Shield" Brand cement in the area of Beijing, Tianjin, Tangshan and Qinhuangdao and has won customers internationally in overseas countries and regions.



杜金弘

James L

人們美好的生活，與我們的水泥息息相關。我廠自建成以來，為京、津、唐、秦地區的經濟建設提供了大量優質水泥，從而一躍成為華北地區最大的水泥供應商。實際上，北京地區近年來建造的著名建築，多數是使用了我們的水泥。我們以此為驕傲，我們更願用辛勤的勞動，為人們提供更多，更好的建築材料。我們亦將努力擴大我們的工廠，以滿足熱情的國內外客戶的需求。

我們真誠地歡迎您與我們合作，共同為人們建造美好的明天。

A happy life of the people is closely linked with cement. Jidong Cement Plant have been provided a great quantity of high-quality cement for the economic construction of Beijing, Tianjin, Tangshan and Qinhuangdao area since it was put into production. This plant has become a biggest cement supplier of North China. In recent years, most of the famous mansions constructed in Beijing were built with the "Dunshi" Brand cement. We take pride in this and will try our best to provide more high-quality construction material. Also we'll try to expand our production capacity to meet the requirement of the fervid customers both at home and abroad.

You are sincerely hope to establish close technical and business cooperation relationship with you to create bright future.

PRODUCTION TECHNOLOGY AND EQUIPMENTS

• 石灰石開採、破碎與輸送

水泥生產主要原料石灰石由工廠自備礦山供給。礦山距廠區約十公里。在採場開採的石塊(最大粒度1.1米×1.1米)經過處理能力為600噸/小時的鍾式破碎機，一次破碎到25mm以下，然後由總長為8.4公里的四段鋼絲芯高強度長距離皮帶輸送到廠區予均化堆場。皮帶寬1000毫米，速度160米/分。

• 原料、燃料的予均化

廠區內有三座大型予均化庫，分別堆放石灰石，輔助原料(砂土、鋁鉍土和鐵粉)和煤。採用先進的縱向分層布料，橫向斷面取料的方式，使物料混合均勻，化學成份波動小，保證產品質量的穩定。

• 窯外分解新工藝

熟料燒成系統，由帶四級旋風預熱器的窯外分解窯和籠式冷卻機組成，預熱塔高68.1米，回轉窯 $\phi 4.7 \times 74$ 米，生產能力為日產熟料4000噸。其特點是：產量高，熱耗低，操作穩定。

• 自動控制系統

設備操作採用集中控制方式，操作全部由設在中央控制室的電子計算機，可編程序控制器和自動計量儀器進行控制，輔以自動取樣，X螢光分析系統，使工廠生產實現了自動操作。

*Limestone exploitation, break and transportation

Limestone, the main material for producing cement, is supplied by our own quarry which is 10km away from plant. The exploited limestone (max allow size is 1.1m x 1.1m) was broken to be less 25mm in once time in a crusher with capability of 600T/h and then transported to mix bed through 4 sets long belt conveyers with 8.4km total length and 1000mm width and 160m/min speed.

*Mixing materials and fuel

In the plant there are 3 large mix bed for mixing limestone, assisted materials (sand soil, aluming dregs and iron powder) and coal separately. By the method of placing material layer by layer longitudinally and scraping it away homogeneously, the materials can be mixed full, the chemical composition can be undulated small and the stability quality of the products are ensured.

*New decomposing technological process outside kiln.

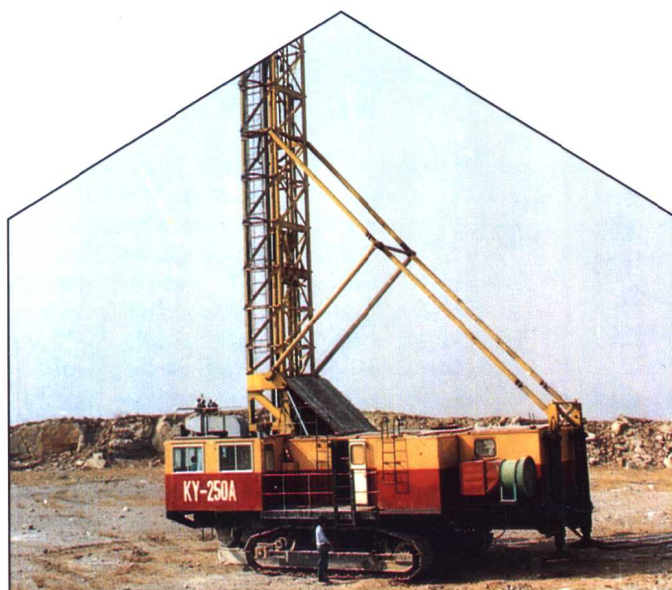
The clinker sintering system consists of pre-heater including 4 grade cyclones kiln and grate cooler. The most decomposing process has finished in the pre-heater.

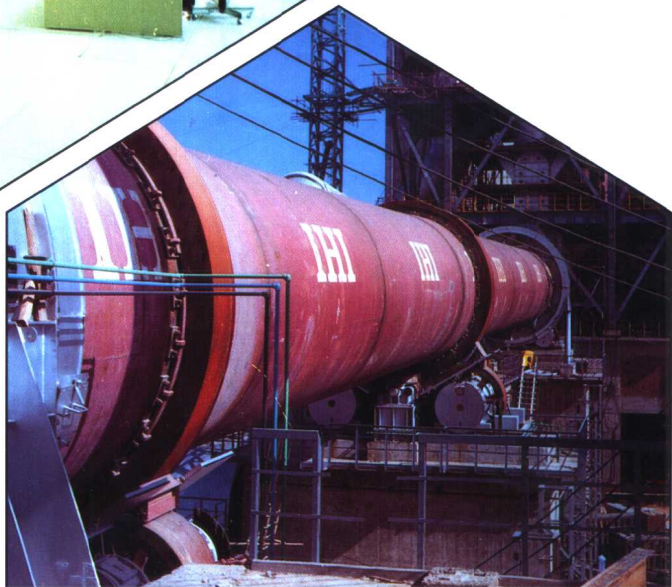
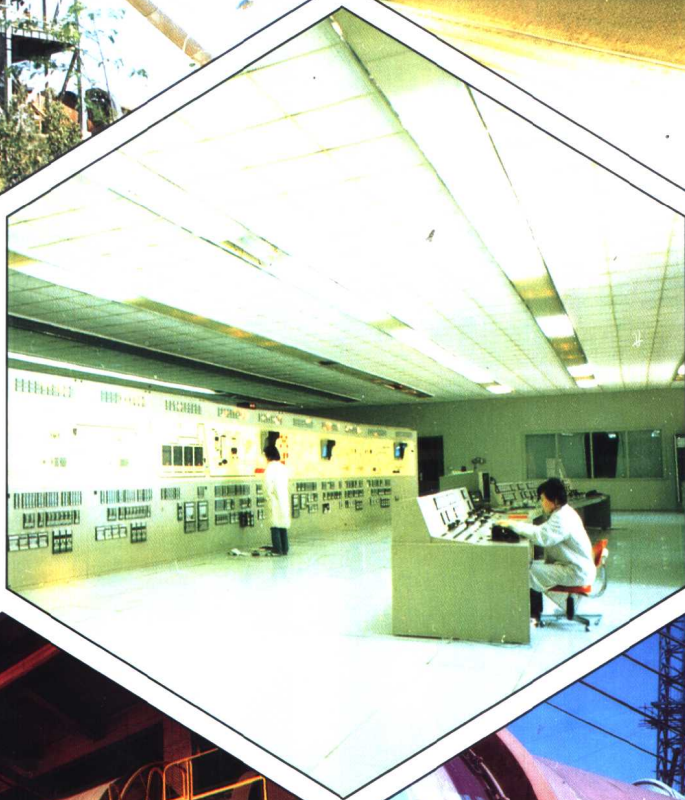
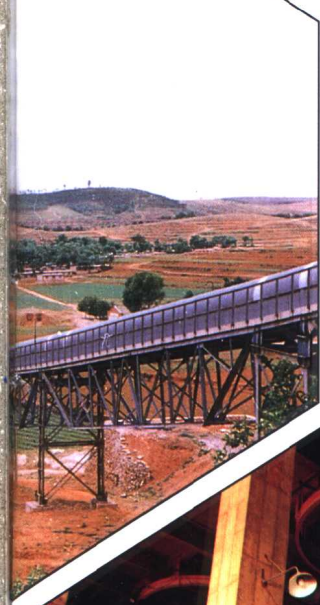
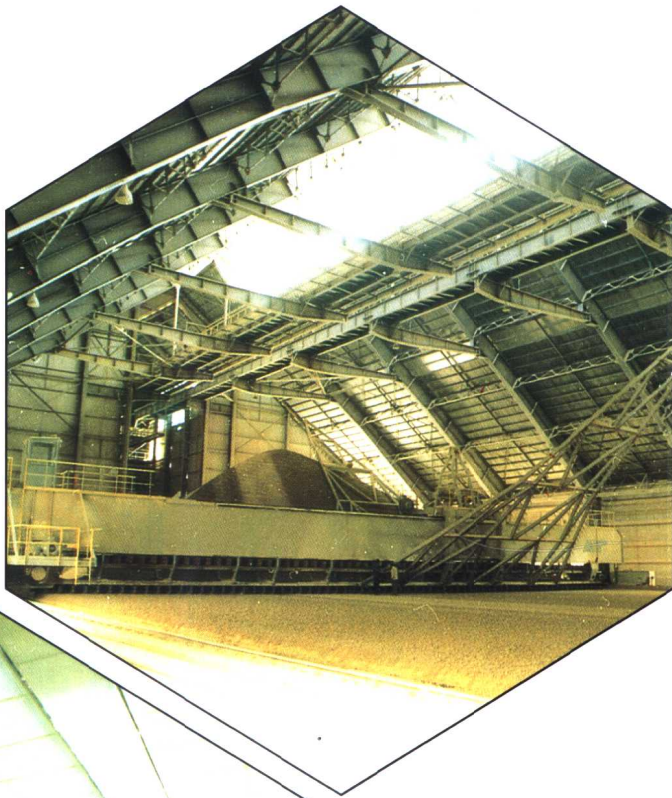
The pre-heater tower is 68.1m height and the rotary kiln with capability of producing clinker 4000t/d is $\phi 4.7 \times 74$ m.

The character of the all system is: high quality, low heat consumption and stable operation.

*Automatic control system.

To operate the equipment, it takes the method of centralized control. All operations are controlled by the computers, processed controller and the automatic-calculated machines set in the central-controlled room. Assisted by automatic-sampling, X-ray fluorescence analyzing instruments, the production of our plant has realized auto-operations.





產品出廠和裝運

Products ex-plant and transportation

產品出廠有嚴格的質量檢驗，裝運分為袋裝和散裝，並分別可用火車和汽車運輸。

袋裝：50公斤/袋的水泥用6台回轉包裝機(每台能力2000袋/時)與裝車機配套，包裝好的水泥直接裝入火車或汽車。亦可應用戶要求供應1噸/袋、2噸/袋的大包裝水泥。

散裝：使用先進的散裝設備，可將庫中的水泥直接裝入散裝汽車或自備散裝列車。

The ex-plant products must pass strict inspection on quality. Transportation includes bag-loading and bulk-loading which can be transported by train or truck separately.

Bag-loading: Cement packed in the bag of each 50kg can be loaded directly upon the train or truck by 6 rotary packing machines (each 2000 bags/per hour) fitted with the loading machines. To meet the customer's need, big packing bags, as 1 ton/per bag or 2 ton/per bag can also be supplied.

Bulk packing: With the advanced bulk-packing facilities, cement can be loaded directly upon bulk trucks or self-prepared bulk train from the cement silo.

- 1 產品質量控制
- 2 散裝汽車運輸
- 3 自備包裝袋生產工廠
- 4 專業水泥運輸公司
- 5 自備散裝列車



冀東水泥廠盾石牌水泥與各國標準對比表

COMPARISON BETWEEN DUNSHI CEMENT AND STANDARDS OF VARIOUS COUNTRIES

標準 Standards		冀東水泥廠 JCP	英國 England	美國 USA	日本 JAPAN
指標 Index		525R 硅酸鹽水泥	RHP BS12	I ASTMC-150	HSC JISR5210
燒失量(%) Loss on ignition(%)		2.42	≤ 3.0	≤ 3.0	≤ 3.0
不溶物(%) Undissolved matter		0.74	≤ 1.5	≤ 0.75
氧化鎂(%) Magnesium oxide		1.12	≤ 4.0	≤ 6.0	≤ 5.0
三氧化硫(%) Sulphuric anhydrite		2.37	≤ 3.5	≤ 3.5	≤ 3.5
細度(M ² /kg) Finenes		357	≥ 325	≥ 280	≥ 330
初凝(維卡法) Initial set (vicat)		126.0min	≥ 45min	≥ 45min	≥ 45min
終凝(維卡法) Final set (vicat)		2.90h	≤ 10h	≤ 6.25h	≤ 10h
抗壓強度 Compressive strength	3天 3 Days	39.5MPa	≥ 29.0MPa	≥ 12.4MPa	≥ 12.7MPa
	28天 28 Days	67.4MPa	≥ 46.0MPa	≥ 27.6MPa	≥ 32.4MPa
盾石水泥抗壓強度 換算為各國標準 Corresponding values of compressive strength of Dunshi portland cement converting to various countries standards		3天 3 days	37.8MPa	26.2MPa	21.7MPa
		28天 28 days	63.8MPa	47.1MPa	42.0MPa



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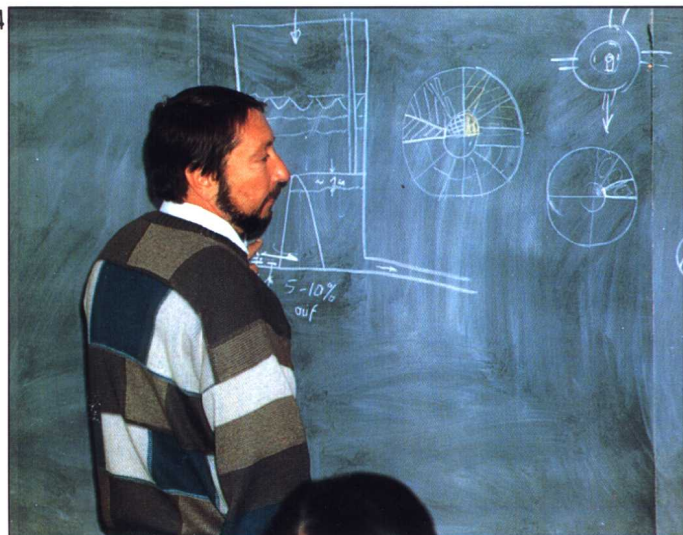
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國際合作、友好往來

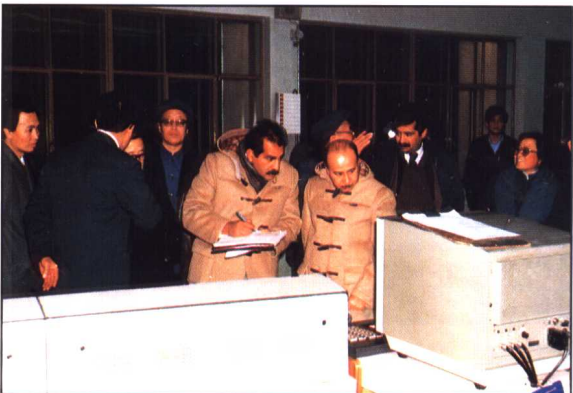
INTERNATIONAL COOPERATION, FRIENDLY INTERCOURSE



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冀東水泥廠與世界上二十多個國家和地區建立了良好的合作關係。盾石牌水泥大量出口到十多個國家和地區。

Jidong Cement Plant has established close cooperated relations with more than 20 countries and regions in the world. "DUNSHI" Brand cement is largely sold to over 20 countries and regions.

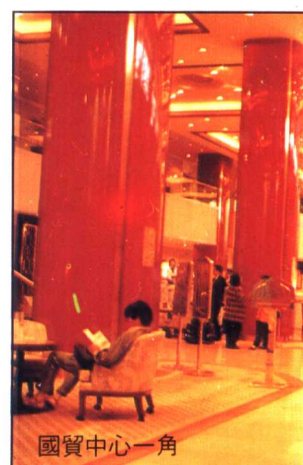


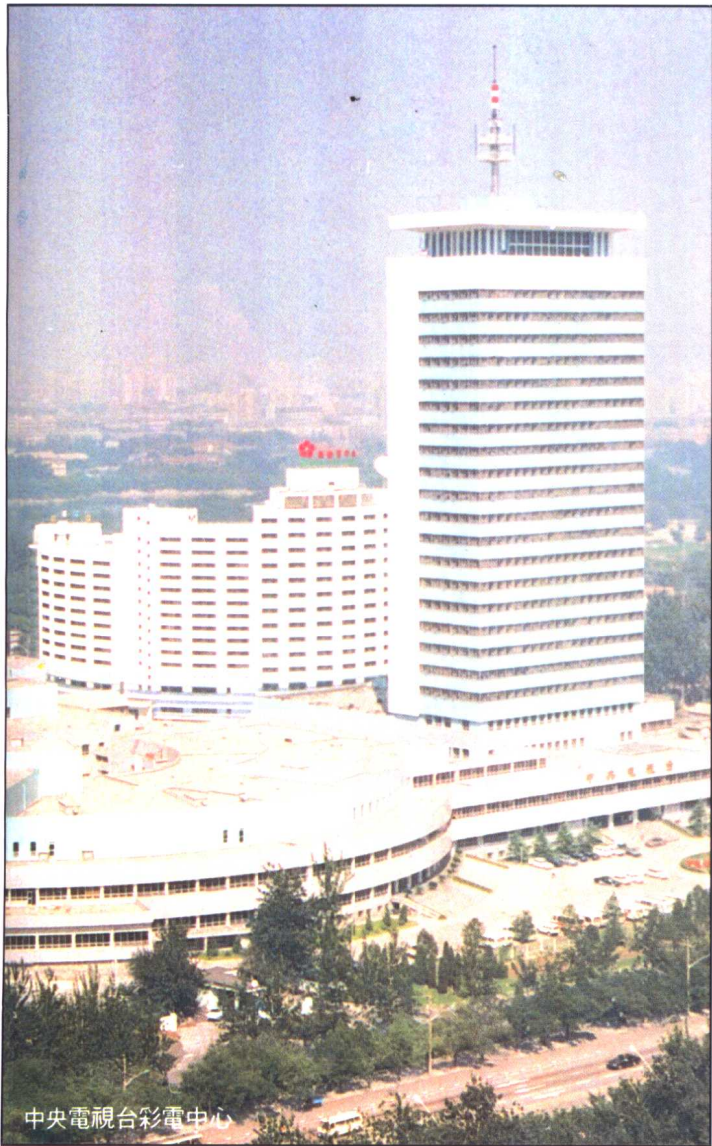
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- 1 九國大使來廠參觀
- 2 現場服務的日本專家
- 3 我廠承包的伊拉克工廠經理來廠
- 4 墨西哥貴賓來廠
- 5 為我廠服務的德國專家
- 6 瑞典貴賓來廠
- 7 中外合作培訓人才
- 8 美國依州賽市金鑰匙

使用盾石水泥建設的著名建築

The famous buildings used with “Dunshi” Brand cement





The material and cultural life of the staffs and workers

- 1 德國爺爺和小朋友
- 2 廠興禽旺
- 3 承辦全國性比賽
- 4 健康保健
- 5 黃金海岸職工療養院
- 6 安居樂業
- 7 名角獻藝
- 8 青春風采



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图书馆
藏书

人類開創了地球的文明社會，他們建造了一個又一個城市，爲自己提供了舒適的生活，我們要告訴您的是：我們的水泥亦爲此盡了一份力。

The human creates the civilized society, they built cities one after another, establishing comfortable living envirmnt for themselves. What we want to tell you here is: Our cement does its bit in helping the human to create the civilized society.

