

SAFETY
安全HIGH EFFICIENCY
高效DURABLE
耐用GREEN
環保PRECISE CONTROL
精準控制AUTOMATION
自動化

酒店

煤氣抽濕機

企業簡介

香港四季酒店於2005年開幕，由四季酒店集團管理，是一座位於中環區黃金地段的甲級高價酒店。四季酒店樓高45層，共設有399間客房，大部分客房均享有180度維多利亞港和九龍半島海岸的景色。酒店融合中西方設計元素，室內空間寬敞且設備豪華，所有客房均裝有空調。為進一步改善酒店房內空氣質素，四季酒店一直裝有煤氣抽濕機，將室內空氣質素維持在卓越級水平，以提高住客的舒適程度。

FOUR SEASONS
HOTELS AND RESORTS

香港四季酒店為住客提高室內空氣質素



精準控制

24 °C
設定溫度65%
設定濕度

樓面面積



110 萬 平方米

安裝設備



19 台煤氣抽濕機

面對潮濕天氣 為酒店做到精準溫濕控制

香港位於亞熱帶沿海地區，全年氣候溫暖潮濕。一般酒店都會以傳統空調系統作溫濕控制，然而，長期靠冷卻系統來進行除濕不但使運行成本高昂，環境過於涼爽也會讓住客感到不適。由於住客一般在晚上長時間逗留在酒店客房，控制室內環境濕度至舒適範圍對住客健康尤其重要。

香港四季酒店座落於維多利亞港畔，因新鮮空氣會受潮濕空氣所影響而帶有濕負荷，加重酒店的濕氣。有見及此，四季酒店及旁邊樓高60層共519房間的服務式住宅四季匯自開業以來一直以煤氣抽濕機控制各樓層的室內空氣質素。系統持續運行超過十年，煤氣公司於近年逐步為四季酒店更換第二批抽濕機，以保持系統持久耐用。



煤氣公司為四季酒店安裝煤氣抽濕機

煤氣
Towngas環保生活每一天
Go Green Every Day

工商事務及營業部
香港中華煤氣有限公司
工商業客戶熱線: 2963 3300
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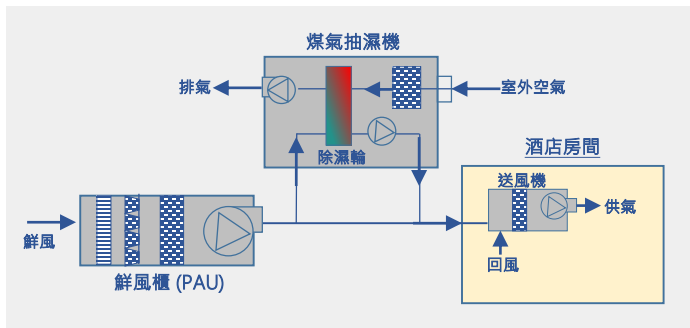
無限商機
為您燃起



應用乾燥劑原理吸濕力強

煤氣抽濕機安裝在現有的鮮風櫃附近，靠風喉與機組接駁以處理鮮風，並允許空調系統獨立控制室內溫度和濕度。

抽濕機的靈魂部分是除濕輪，當處理風通過除濕輪時接觸到乾燥劑，水分就會被乾燥劑吸收，使處理風變乾並供應到酒店房間。煤氣抽濕機的好處就是客戶可自行調較設定溫度，就算於高溫仍能保持乾爽舒適的環境。

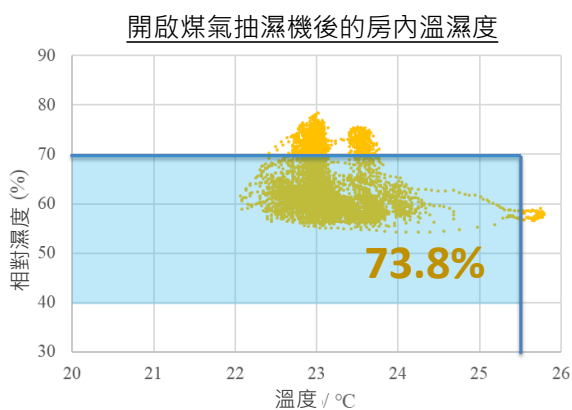
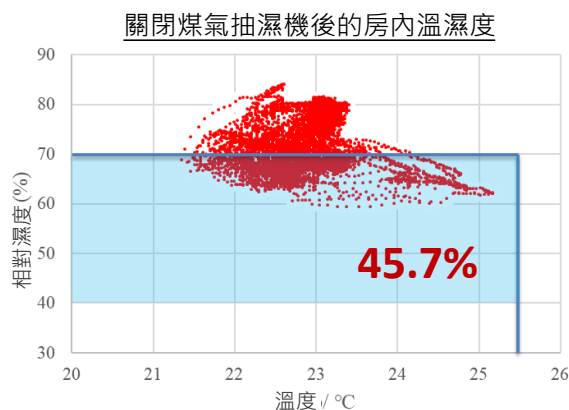


煤氣抽濕機的原理圖

研究發現: 有效將室內溫濕度控制至舒適水平

一般酒店會把室內溫濕度維持在溫度舒適區以確保住客有舒適的住宿體驗。在2020年，煤氣公司委託香港城市大學於四季酒店進行有關溫濕度的研究，量度於同一酒店房間，開啟與關閉煤氣抽濕機對房內溫濕度的影響。研究指出，在使用煤氣抽濕機後，室內溫濕度維持於舒適範圍的百分比由45.7%提升至73.8%，表示煤氣抽濕機在長時間有效將室內空氣調節至舒適水平。

溫度舒適區
室內溫度: 20-25.5 °C
相對濕度: 40-70%



香港城市大學能源及環境系於2020年在四季酒店進行維期三個月研究，點出房間溫濕度的分佈與變化，證明抽濕機有效將房內溫度及相對濕度控制至舒適範圍



四季酒店的房內空氣質素與衛生情況在安裝煤氣抽濕機後皆有所提升

降低運營成本 提高住客滿意度

相比傳統的空調系統，煤氣抽濕機令房間保持乾爽並有效提升空氣質素，讓房內天花與傢俬保持最佳狀態，降低酒店的裝修與維護成本。四季酒店不僅表示滿意抽濕機的表現，還表示連住客也能感受到室內空氣經處理後變得更清新與涼快，大大提高住客的滿意度。



SAFETY
安全



HIGH EFFICIENCY
高效



DURABLE
耐用



GREEN
環保



PRECISE CONTROL
精準控制



AUTOMATION
自動化

Corporate Introduction

The Four Seasons Hotel Hong Kong is a luxurious five-star hotel located in the heart of Central. It started operating back in 2005 and is managed by the Four Seasons Hotels and Resorts. The hotel consists of 45 storeys and 399 rooms, of which a large proportion enjoys a 180-degree view of the Victoria Harbour and the Kowloon Peninsula. The hotel harmoniously merges the characteristics of both Chinese and Western designs, while rooms are all air-conditioned, spacious and comfortable. In order to further enhance the indoor air quality (IAQ), the hotel has desiccant dehumidifiers in place to maintain IAQ at the highest "Excellent" level so as to enhance the comfort of its guests.



Four Seasons Hotel Hong Kong Improves IAQ for Better Guest Experience



Precise Control



24 °C

Design
Temperature



65%

Design
Humidity

Floor Area



1.1 million m²

Equipment



19 desiccant
dehumidifiers

Precise Climate Control to Combat Humid Weather

Situated in a subtropical coastal region, Hong Kong is hot and humid throughout the year. It is common for hotels to control their indoor temperature and humidity using conventional HVAC systems. However, regulating humidity by such means for extended periods of time not only jacks up operation costs, but also causes discomfort to guests due to the low temperature. Since most guests would stay in their rooms overnight, it is of utmost importance to control the indoor humidity for the sake of their health.

As the Four Seasons Hotel Hong Kong is situated along Victoria Harbour, fresh air mixes with moist air from the sea, thus increasing the moisture load. Therefore, the hotel as well as the nearby Four Seasons Place serviced apartments uses desiccant dehumidifiers from Towngas for humidity control. With the system in operation for over a decade, Towngas has helped the hotel replacing its dehumidifiers so as to ensure their smooth operation.

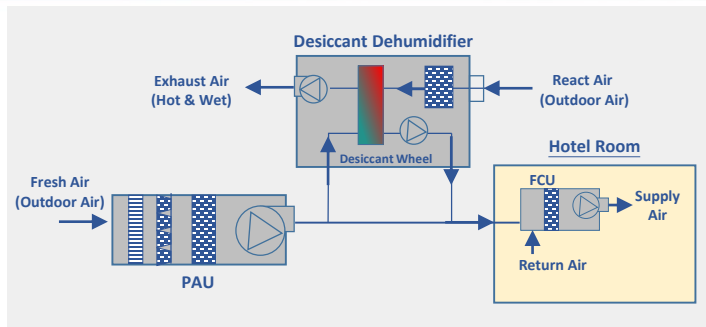


Towngas installed desiccant dehumidifiers for Four Seasons Hotel Hong Kong



Desiccant Dehumidification

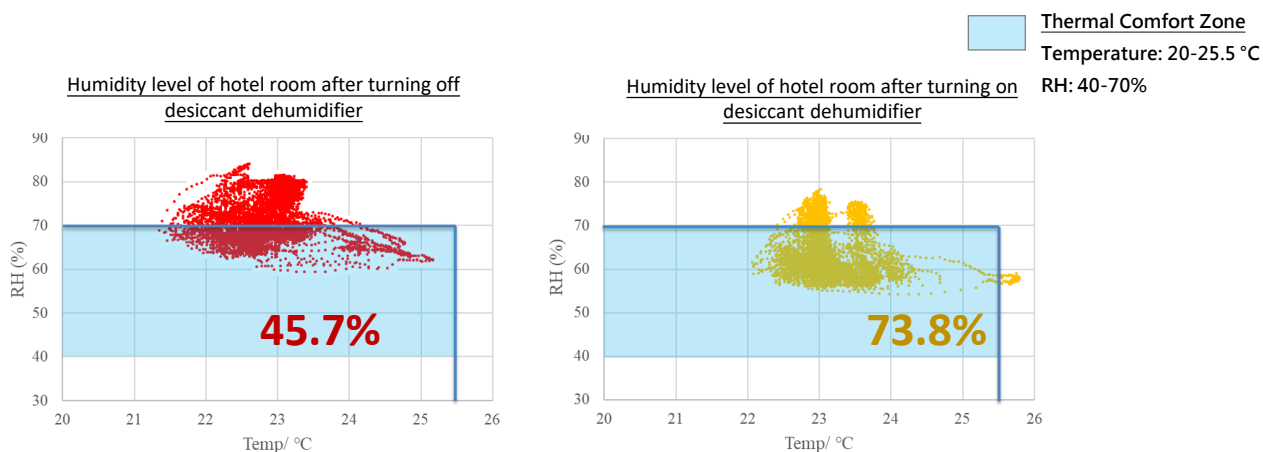
The desiccant wheel is a key component of the dehumidifier. The moisture in the air is absorbed by the desiccant wheel then supplied to hotel rooms, which facilitates hotel operators' maintenance of ideal temperature and humidity levels throughout the changing seasons.



■ Schematic arrangement of desiccant dehumidification

Research Proven to Control Indoor Temperature and Humidity

Most hotels control their indoor temperature and humidity within the comfort zone for better guest experience. In 2020, Towngas conducted a research study with the City University of Hong Kong at the Four Seasons Hotel Hong Kong, comparing the temperature and humidity levels in rooms with and without a desiccant dehumidifier. The results suggest that the use of a desiccant dehumidifier raises the percentage of data within the thermal comfort zone from 45.7 per cent to 73.8 per cent, proven the desiccant dehumidifier's effect in enhancing IAQ.



■ City University of Hong Kong School of Energy and Environment conducted a survey in 2020 to measure the change in temperature and relative humidity (RH) for Four Seasons Hotel rooms with and without a desiccant dehumidifier. Results indicate that the dehumidifier maintains temperature and RH within the thermal comfort zone.



■ Desiccant dehumidifier helps improving IAQ and hygiene

Lowering costs, Increasing satisfaction

Compared with traditional HVAC systems, desiccant dehumidification is better at keeping humidity constant and improving air quality as well as the overall condition of the indoor space, including the ceiling and furniture. With lower maintenance and renovation costs, Four Seasons Hotel expressed their satisfaction towards the performance of the dehumidifier. With better circulation of cool and fresh air, the hotel can now deliver services with a higher standard of customer satisfaction.