

此資料為香港生產力促進局研究開發的活性炭吸味系統，主要是協助業界減低車房在維修車輛時使用有機溶劑導致的空氣污染。有關資料謹作參考。同時務必注意，市場上另有其它承造商可營造同類系統。

## 易用而價錢廉宜的處理車房揮發性有機溶劑系統

### A Simple and Cost Effective Way for Treating Volatile Organic Solvents from Garages



掛天花式 (Ceiling Mount)

香港人煙稠密，有很多中及小型維修車房都十分接近民居。在維修汽車時，車房每每使用有機溶劑，往往會發出難聞氣味，造成空氣污染。車輛維修工作所產生的噴霧及溶劑未經處理而排放入大氣，難聞的氣味對附近居民造成滋擾，影響環境。

香港生產力促進局針對汽車維修業所引致的空氣污染，設計了一套小型活性炭除味系統，經實地試驗後，證實能有效地處理維修所散發在空氣中的揮發性有機化合物及減低臭味滋擾。

此活性炭除味系統的好處包括

- 1) 操作簡易
- 2) 節省空間
- 3) 有效地控制揮發性有機化合物及氣味
- 4) 懸吊式、掛牆式或座地式，靈活安裝
- 5) 設有時間掣，以提示更換活性炭濾層



掛牆式 (Wall Mount)

Hong Kong is a small but densely populated city. A number of small / medium vehicle repairing workshops are located close to residential buildings. Offensive odour and other air pollutants are emitted during vehicle repairing including paint spraying, such air pollutants are usually emitted into the ambient air without any treatment and cause nuisance to the neighbours.

Hong Kong Productivity Council (HKPC) working with the trade of vehicle repairing, identified the air pollution problem and nuisance rising from emission of VOC. An activated carbon adsorption system is specially designed to tackle the air pollution problem. The activated carbon adsorption system has been verified to remove volatile organic compounds (VOCs) from vehicle repairing (including paint spraying) process effectively and greatly reduces the offensive odour nuisance.

The advantages of the activated carbon adsorbers are :

1. Ease of operation
2. Space saving
3. High efficiency to remove VOCs and odour
4. Flexible installation: ceiling mount, wall mount or floor stand
5. Timer to alert the replacement of activated carbon filter.



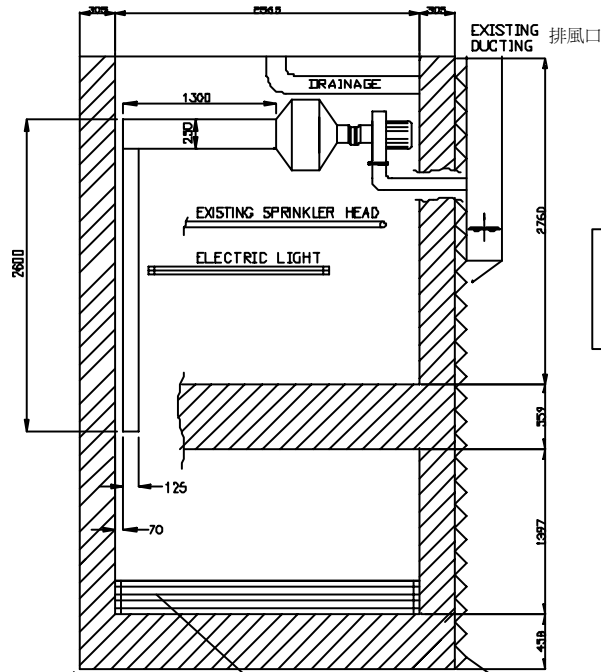
活性炭濾層  
Activated Carbon Layer



應用於中型維修車房的活性炭除味系統  
Real Application in a Medium Garage



應用於小型維修車房的活性炭除味系統  
Real Application in a Small Garage

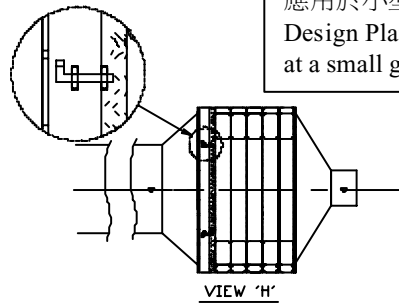


應用於小型維修車房的活性炭除味系統平面圖  
Layout Plan of the activated carbon adsorber installed at a small garage

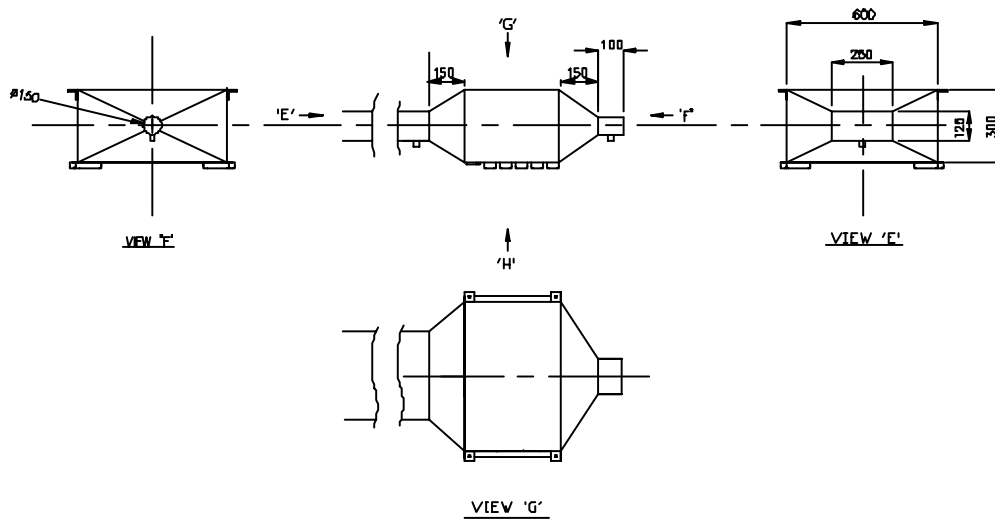
EXISTING ROLLER SHUTTER  
門口拉閘

ROLLER SHUTTER TO BE PROVIDED BY GARAGE OWNER

活動捲簾



應用於小型維修車房的活性炭除味系統設計簡圖  
Design Plan of the activated carbon adsorber installed at a small garage



**適合於小型車房(工作場地<sup>1</sup>可同時容納1輛汽車)使用的活性炭吸味器**  
**Activated Carbon Adsorber for Small Garages with Working Bay<sup>1</sup> for 1 Vehicle**

活性炭吸味系統的規格 (適用於小型車房) (工作場地 <sup>1</sup> 可同時容納1輛汽車)	Specifications of Activated Carbon Adsorber ( for Small Garage with working bay <sup>1</sup> for 1 Vehicle)
選用物料：全不銹鋼	Materials of construction : Stainless Steel
設計風量：每分鐘 6 立方米	Design Air Flow Rate : 6 m <sup>3</sup> /min
輸入功率：0.5 千瓦	Power Input : 0.5 kW
所需電源：220/1/50 (220 伏特，單相，50 赫)	Power Supply : 220/1/50 (200V, single phase, 50Hz)
活性炭重量：24 千克	Weight of Activated Carbon : 24 kg
活性炭壽命：大約 100 小時	Life Span of Activated Carbon : About 100 hours
風阻：20 毫巴	Pressure Drop : 20 mbar
尺寸：900 x 600 x 300 毫米 (長、闊、高)	Dimension : 900 x 600 x 300 mm (LxWxH)

**適合於中型車房(工作場地<sup>1</sup>可同時容納2-4輛汽車)使用的活性炭吸味器**  
**Activated Carbon Adsorber for Medium Garages with Working Bay<sup>1</sup> for 2-4 vehicles**

活性炭吸味系統的規格 (適用於中型車房) (工作場地 <sup>1</sup> 可同時容納 2-4 輛汽車)	Specifications of Activated Carbon Adsorber ( for Medium Garage with working bay <sup>1</sup> for 2-4 vehicles)
選用物料：全不銹鋼	Materials of construction : Stainless Steel
設計風量：每分鐘 11 立方米	Design Air Flow Rate : 11 m <sup>3</sup> /min
輸入功率：1 千瓦	Power Input : 1 kW
所需電源：220/1/50 (220 伏特，單相，50 赫) 或 380/3/50 (380 伏特，三相，50 赫)	Power Supply : 220/1/50 (200V, single phase, 50Hz) or 380/3/50 (380V, three phase, 50Hz)
活性炭重量：47 千克	Weight of Activated Carbon : 47 kg
活性炭壽命：大約 100 小時	Life Span of Activated Carbon : About 100 hours
風阻：20 毫巴	Pressure Drop : 20 mbar
尺寸：900 x 600 x 600 毫米 (長、闊、高)	Dimension : 900 x 600 x 600 mm (LxWxH)

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<sup>1</sup> 工作場地指一般使用有機溶劑的工作空間，例如除油，噴油，使用火水，酒精等清潔引擎及其他機械零件等  
Working bay refers to the working area which utilizes organic solvents for paint stripping, surface coating, cleansing of engine and other parts with solvents or alcohol.