

【600 kWth 雙流化床氣化爐】

600 kWth 雙流化床氣化爐系統為國內學研單位唯一的準工業級氣化系統，以雙爐體內循環的方式將生質物/廢棄物在氣化爐內進行氣化，氣化所產生之氣化合成氣(Syngas)可導出作為後端輔助燃料使用。因廢棄物能源化再利用為未來發展之趨勢，且現今空氣污染物排放標準趨嚴，因此將固態燃料氣化為合成氣後進行氣態燃燒與利用，屬於較潔淨的燃燒應用方式，可大幅減少粒狀污染物的排放。目前本系統可針對國內使用燃料油或固態燃料燃燒爐的廠商進行推廣外(廠商可進行共燒以降低排放汙染與減少碳排)，並可結合前端料源提供與後端產蒸氣/熱/發電等應用。

【600 kWth Dual Fluidized Bed Gasifier】

The 600 kWth dual-fluidized bed gasifier is the only quasi-industrial gasifier in the domestic academia. It circulates the biomass/waste in the double fluidized reactors, and the synthesis gas (syngas) produced by the gasifier can be exported as an auxiliary fuel. Due to the trend of waste energy reuse, and the increasingly strict emission standards of air pollutants, gasification of solid feedstock into syngas for gaseous combustion is a cleaner combustion application and can obviously reduce emission of particulate pollutants. At present, this system can be promoted for domestic manufacturers that use furnaces with liquid or solid fuels. They can operate co-combustion to reduce pollutants and reduce carbon emissions. The facility can also be connected with the front-end feedstock supply and back-end steam/heat/power generation applications.



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