#### YSM SERIES AIR HANDLING UNITS

# Typical Applications

### Commercial Space

- Johnson Controls IAQ solutions can ensure a high-quality indoor environment
- Aerodynamic inlets design, fans are statically and dynamically balanced
- Isolation design with quiet operation
- Easy installation and maintenance



### Hygienic Systems

- Flush finishing to deter dust accumulation
- Full range filter options from G1 to H13, sterilization and dust removal
- Direct driven plug fan avoiding belt debris contamination

### Industrial Manufacturing

- The thermal bridge free design (TB2) ensures excellent air tightness (L2).
- 81 recommended standard models
- More than 20 type of sections





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# YSM Series Air Handling Units



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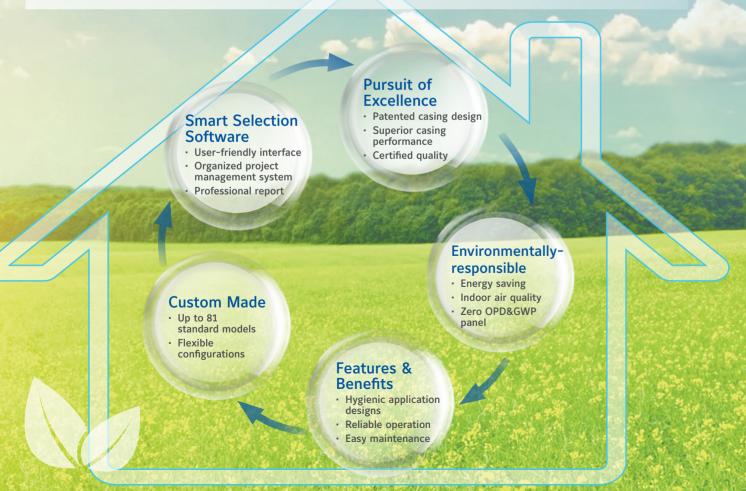
# Pursuit of Excellence, Air Purification and Conditioning Expertise

### YSM Air Handling Units

The YSM series double skin air handling unit (AHU) consists of 81 models having air volumes ranging from  $1,200 \sim 99,180 \text{m}^3/\text{h}$  and internal static pressures as high as ±1500 (for 50mm thickness panel) / ±1000 (for 25mm thickness panel), to ensure maximum flexibility and the best solution for your application.



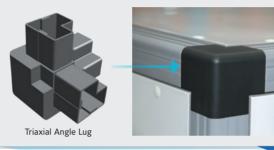
YSM air handling units are modular in design and can be manufactured in varied configurations, with a wide selection of components, to meet customer requirements. Units are suitable for shopping malls, hotels, office buildings etc. which in today's world demand improved indoor air quality requirements, and can also adapted to the hygiene and performance requirements of sectors and industries that depend on ultra-cleanliness, such as hospitals, pharmaceuticals, electronic factory etc.



# **YSM Product Features**

### New Patented Casing Design

Aluminium & PVC profile joined reinforced plastic triaxial angle lug, forming the structural frame to house all internal components and able to comply with EN1886 class D1 mechanical strength (under the design condition, the deflection is less than 4mm/m)



AHRI1350 Certified Ratings		YSM Panel Thickness	
		50mm	25mm
Casing Deflection Rating		CD4	CD4
Casing Air Leakage Rating		CL3	CL2
Casing Thermal Transmittance Rating	w/ Leakage	CT2	CT3
	w/o Leakage	CT2	CT3
Casing Thermal Bridging Rating		CB2	CB2

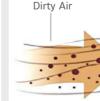
## Central Station Air-Handling Unit Casings AHRI Standard 1350

1886 Mechanical Performance	YSM Series Class		
Panel Thickness	50mm	25mm	
Thermal Bridging Factor	TB2	TB3	
Thermal Transmittance	T2	T2	
Air Leakage(-400/+700Pa)	L1	L1	
Casing Strength	D1	D1	
Filter Bypass Leakage	F9	F9	

# IAQ Solutions

Johnson Controls electrostatic precipitator option: An electrostatic precipitation filter is used to remove fibers and large-particle dust and then the built-in high-pressure dust collector, through positive and negative corona, filters fine dust particles and kills bacteria and germs attached to the dust particles.





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#### Thermal Bridge Free Design

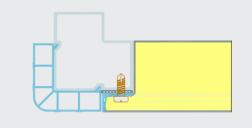
Patented structure (The patent No: ZL201620519850.1) of thermal bridge free design is applied in YSM series. New Aluminium & PVC profile, reinforced plastic triaxial angle lug and specially designed door make heat insulation more efficient and appearance more aesthetic, and thermal bridge

factor can meet EN1886 class TB2(for 50mm MB)/ TB3(for 25mm MB).



#### Low Air Leakage

Provided with Aluminium & PVC profile and PVC seals, to ensure air leakage rate is less than 1%, and able to comply with EN1886 class L1 and to be equivalent to GB/T 14294 clean air conditioning requirement.



#### **Better Heat Insulation**

Double skin construction is provided by "sandwich" type panels with high density strip. The foam panel and profile skins are injected with Zero ODP & Zero GWP PU foam of 40kg/m<sup>3</sup>, and the thermal transmittance factor meets EN1886 class T2.

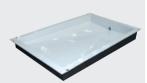


### Hygiene

The flush-joint from the panel to frame has a smooth surface and curves at corners to prevent dirt and water retention.

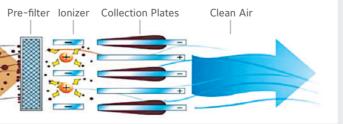


Drain pan is dual V-shaped structure with longitudinal slope, which allows quick and easy drainage of condensate water.



The high quality direct-driven fan (plug fan) is optional, avoids pollution caused by wear of the drive belt.





### High Efficiency Heat Exchanger

Cooling and heating coil are made of mechanically expanded copper tubes with aluminium fins, providing reliable performance certified by AHRI 410.



### **YORK**

Johnson ∭ Controls