WAB and WCB-A and WCB-C

Comparison Between Indoor Indirect-Fired Warm Air Heating and Outdoor Indirect-Fired Warm Air Heating Solutions

Key Conclusions:

Both WAB and WCB-A / WCB-C belong to the indirect-fired warm air heating category.

The core difference is not whether the heating method is indirect-fired, but rather the installation location of the main unit, airflow organization, and compatibility with building safety requirements.

- WAB: The main unit is installed indoors and is more suitable for overall warm air coverage of the main building space
- WCB-A / WCB-C: The main unit is usually installed outdoors and is more suitable for projects requiring clear separation between indoor and outdoor functions, where gas piping is typically kept outside the building
- WCB-A is better suited for axial direct-blow airflow with low resistance
- WCB-C is better suited for centrifugal airflow, ducted air delivery, and projects with higher external static pressure requirements

Comparison Dimension:

Comparison Dimension	WAB	WCB-A	WCB-C
Heating Principle	Indirect-fired	Indirect-fired	Indirect-fired
Main Unit Location	Indoor	Outdoor	Outdoor
Gas Pipeline Location	Enters the building	Usually remains outside	Usually remains outside

Comparison Dimension	WAB	WCB-A	WCB-C
Air Supply Method	Warm air coverage for the main indoor space	Axial direct-blow	Centrifugal airflow / duct connection available
Typical Applications	Factories, warehouses, workshops	Factories, workshops, direct-blow applications	Warehouses, logistics centers, ducted air systems
Building Safety Compatibility	Depends on indoor gas installation conditions	More favorable	More favorable
Indoor / Outdoor Functional Separation	Moderate	Stronger	Stronger
External Static Pressure Capability	Standard	Low	Higher
Typical Air Supply Logic	Overall warm air coverage for the main space	High air volume / short-distance direct blow	Ducted air delivery / multi-point air supply
Main Evaluation Focus	Overall coverage of the main building space	Low-resistance airflow	Duct requirements and external static pressure requirements

Quick Selection Guidelines:

Situations Where WAB Should Be Prioritized:

- Overall warm air coverage of the main building space is the primary objective

- The project is more like a typical indoor indirect-fired warm air heating application
- Outdoor installation of the main unit is not a key requirement
- The building allows installation of indoor warm air heating equipment

Situations Where WCB-A Should Be Prioritized:

- The main unit is preferably installed outdoors
- Gas piping is preferably kept outside the building
- Large air volume, short-distance, and low-resistance direct airflow is required
- The building’ s airflow layout is relatively simple

Situations Where WCB-C Should Be Prioritized:

- The main unit is preferably installed outdoors
- Ducted air supply is required
- External static pressure performance is required
- More complex airflow organization or multi-point air supply is needed

Conclusion:

WAB is an indoor warm air heating solution for overall main-space coverage.

WCB-A and WCB-C are outdoor-unit warm air heating solutions. Among them:

WCB-A focuses more on direct airflow

WCB-C focuses more on ducted airflow systems