

COLD ROOM SWING DOOR SYSTEMS

Industrial PIR Panel Door Solutions

Overlapping Door

Semi-Overlapping Door

PIR Insulated Core

Heater for Low Temperature



APS SWING DOOR INDUSTRIAL EDITION

Complete product overview for APS cold room swing door systems, including two door styles, PIR panel construction, standard installation concept, heater option for low-temperature applications, hardware, project applications and maintenance.

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ALLIANCE PANEL & SYSTEM

APS Alliance Panel & System specializes in industrial cold storage systems, insulated panel enclosures and cold room door solutions for modern refrigeration and controlled-environment facilities.

APS swing doors follow the same insulated PIR panel construction concept used in APS sliding door systems. The door leaf is manufactured from PIR insulated panel material, with project-specific frame, gasket, hinge and handle arrangements.

- Industrial cold room systems
- Insulated panel solutions
- PIR panel swing and sliding door systems
- Controlled-environment enclosures



INDUSTRIAL COLD CHAIN SOLUTIONS

- ASRS cold storage warehouses
- Food processing facilities
- Pharmaceutical storage
- Logistics distribution centers
- Cleanroom and controlled environments

ONE DOOR CONSTRUCTION MULTIPLE APPLICATIONS

APS Swing Door Systems are based on a simple and consistent principle: the same PIR panel door construction and general installation method can be applied across different cold room scenarios. The main variation is the heater provision required for low-temperature or freezer applications.



PIR PANEL DOOR LEAF

The door blade is produced using insulated PIR panel construction, similar to APS sliding door leaves.



STANDARD INSTALLATION

The installation concept remains generally the same across chilled, cold room and freezer applications.



HEATER WHERE REQUIRED

Heater cables are added where low-temperature operation requires anti-frost protection.



OVERLAPPING TYPE

Main APS swing door style with an overlapping sealing concept.



SEMI-OVERLAPPING TYPE

Alternative style for selected site conditions and opening arrangements.



PROJECT CUSTOMIZATION

Door size, hardware, heater provision and accessories can be customized to project requirements.

TWO MAIN SWING DOOR STYLES

APS swing doors are mainly offered in two styles: Overlapping Door as the main recommended style, and Semi-Overlapping Door as an alternative arrangement. Both use PIR panel door leaf construction.

MAIN STYLE



OVERLAPPING DOOR

Main APS swing door style. The door leaf overlaps the frame opening to support better sealing performance.

- Main recommended type
- PIR insulated panel door blade
- Overlapping sealing arrangement
- Heater cable added for freezer use



ALTERNATIVE STYLE



SEMI-OVERLAPPING DOOR

Alternative swing door style with partially overlapping sealing arrangement for selected site conditions.

- Same PIR panel construction
- Semi-overlapping sealing arrangement
- Same general installation method
- Heater cable added for freezer use



— MAIN PRODUCT STYLE

OVERLAPPING DOOR

The Overlapping Door is the main APS swing door style. The PIR panel door blade overlaps the frame opening to improve sealing and reduce air leakage risk.

- Main recommended APS swing door style
- PIR insulated door blade
- Suitable for cold room and freezer room applications
- Same installation concept across applications
- Heater cable added for low-temperature use

**MAIN
TYPE**

**BETTER
SEAL**

**PIR
PANEL**

**HEATER
READY**





— ALTERNATIVE PRODUCT STYLE

SEMI-OVERLAPPING DOOR

The Semi-Overlapping Door is an alternative APS swing door style. It follows the same PIR panel construction and general installation concept, with a partially overlapping sealing arrangement.

- Alternative swing door style
- Same PIR insulated panel door blade
- Partially overlapping sealing concept
- Suitable for selected opening conditions
- Heater cable added for freezer applications

ALTERNAT
IVE TYPE

SAME
PANEL

SAME
INSTALL

HEATER
OPTION



Selected PIR insulated panel systems supplied by Cycle World.

DOOR CONSTRUCTION

PIR PANEL DOOR LEAF

APS swing doors are manufactured using PIR insulated panel construction. The construction principle is similar to APS sliding door leaves, allowing a consistent product system across door types.

- PPGI Surface Finish: industrial-grade pre-painted galvanized steel surface.
- PIR Insulation Core: insulated core for thermal performance.
- Reinforced Door Frame: stable support for the swing door assembly.
- Industrial Gasket System: flexible sealing to reduce air leakage.
- Heating Cable Integration: added for low-temperature applications where required.
- Heavy-Duty Hinges: selected based on door size and usage.

COLD ROOM SWING DOOR SPECIFICATIONS

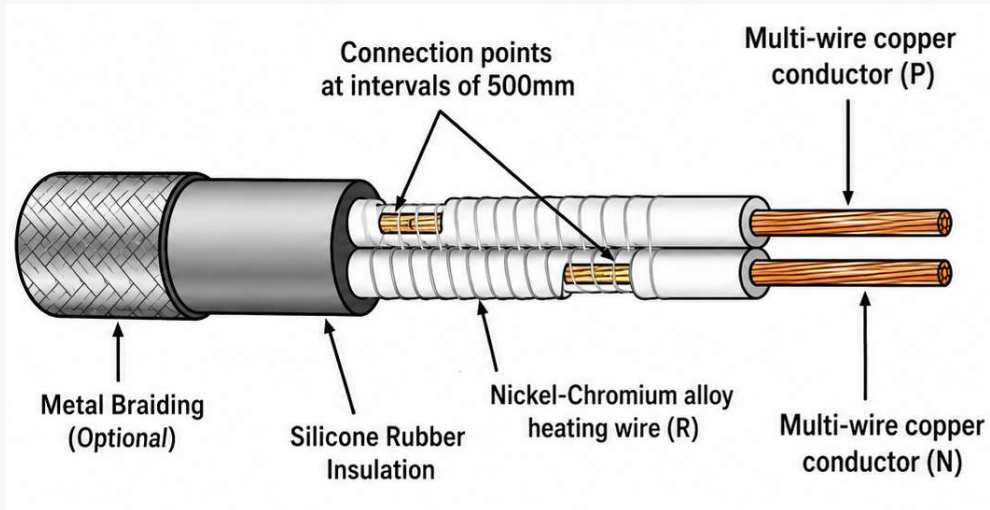
The swing door design is intentionally standardized. Door leaf construction, installation approach and basic hardware arrangement remain consistent across applications. Heater cable is added when operating temperature or site condition requires anti-frost protection.

FEATURE	SPECIFICATION
Door Styles	Overlapping Door / Semi-Overlapping Door
Application	Suitable for cold room environments
Temperature Range	+10°C to -35°C
Door Size	Customized to requirements
Door Thickness	100mm and above
Insulation Material	Polyurethane Foam / PIR
Density	44 kg/m ³
Cladding	0.5mm PPGI
Heating System	Required / optional for low-temperature applications; door frame and door blade heater can be installed
Door Hinges & Handle	Optional, based on selected configuration

Specification table prepared based on supplied APS Swing Door technical information. Final project details shall follow approved shop drawings and selected hardware configuration.

HEATER SYSTEM

The swing door construction and installation remain the same across applications. For low-temperature rooms and freezer applications, heater cables are added to reduce frosting, condensation, gasket freezing and door sticking issues.



FEATURE	SPECIFICATION
Door Frame Heater	Added for low-temperature applications to help prevent ice accumulation around frame
Door Blade Heater	Applied where door blade or sealing area requires additional anti-frost protection.
Gasket Area	Maintains sealing flexibility in freezer conditions.
Bottom Heater Tray	Reduces freezing risk at lower threshold zone.
Electrical Integration	Supports site isolator and power connection arrangement.

For chilled or positive-temperature rooms, heater provision may not be required. Heater requirement should be confirmed based on room temperature, humidity and operational conditions.

HARDWARE & COMPONENTS

Swing door hardware is selected according to door size, operation preference and project requirements. The basic door type remains the same, while accessories such as heater cable, handle type and hinge type may be adjusted.



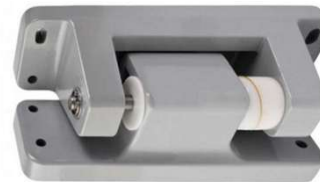
DOOR HANDLES

Ergonomic cold room handle options for reliable operation.



STANDARD HINGES

Suitable for general cold room swing door applications.



RISING HINGES

Improves lifting action and gasket compression release.



GASKET SYSTEM

Flexible sealing system to reduce thermal leakage.



ADJUSTABLE HINGES

Allows door alignment during installation and maintenance.



COMPOSITE HINGES

Industrial-grade hinge systems for overlapping doors.

LOCKING OPTIONS

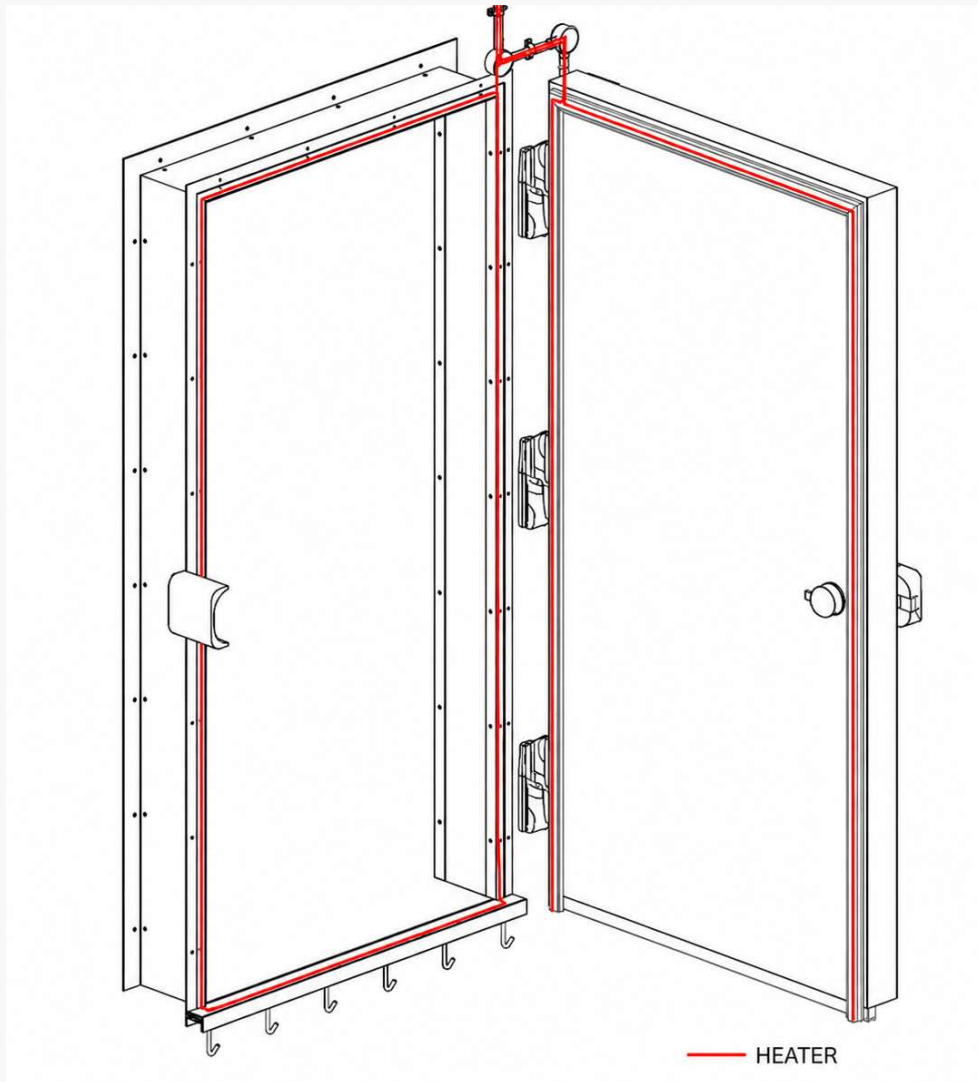
Optional locking configuration based on project selection.



HEATER ACCESSORIES

Integrated heater components for low-temperature protection.

BUILT FOR INDUSTRIAL COLD STORAGE



FEATURE	SPECIFICATION
Thermal Insulation	Temperature retention supported by PIR insulated panel construction.
Hygienic Surface	Smooth and easy-to-clean PPGI finish.
Corrosion Resistance	Industrial-grade coated steel cladding.
Low Temperature Stability	Suitable for low-temperature applications when heater protection is provided.
Sealing Performance	Overlapping or semi-overlapping sealing arrangement with gasket system.
Operational Reliability	Stable long-term door operation with correct installation and maintenance.

APS Swing Door Systems are developed as standardized PIR panel door assemblies for industrial refrigeration applications. Performance is primarily achieved through insulated panel construction, gasket sealing and correct installation; heater cables are added only where low-temperature conditions require them.

CUSTOM BUILT DOOR SOLUTIONS

APS provides customized door systems based on project requirements, site conditions and operational needs.



CUSTOM DIMENSIONS

Door size based on project requirements.



DOOR STYLE

Overlapping or Semi-Overlapping Door based on project requirement.



HEATER INTEGRATION

Added where low-temperature operation requires anti-frost protection.



VISION WINDOW

Optional visibility and safety feature.



KICK PLATE

Optional stainless steel protection plate.



HARDWARE SELECTION

Hinge, handle and gasket configuration.



SURFACE FINISH

Finishing selection based on project needs.



PANEL COMPATIBILITY

Compatible with 50mm to 200mm panels.

INDUSTRIAL APPLICATION SOLUTIONS



COLD STORAGE

General cold room door solution for temperature-controlled facilities.



FREEZER ROOM

Low-temperature performance with heater cable protection where required.



FOOD PROCESSING

Hygienic cold room door solution for food-grade environments.



PHARMACEUTICAL STORAGE

Stable temperature retention for controlled storage applications.



LOGISTICS WAREHOUSE

Reliable door systems for cold-chain distribution facilities.

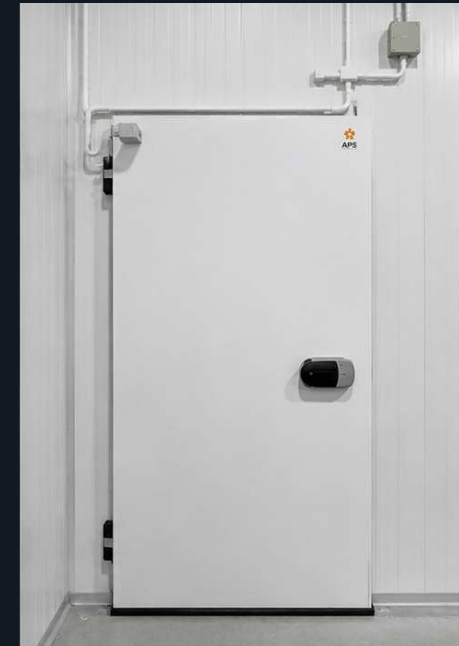
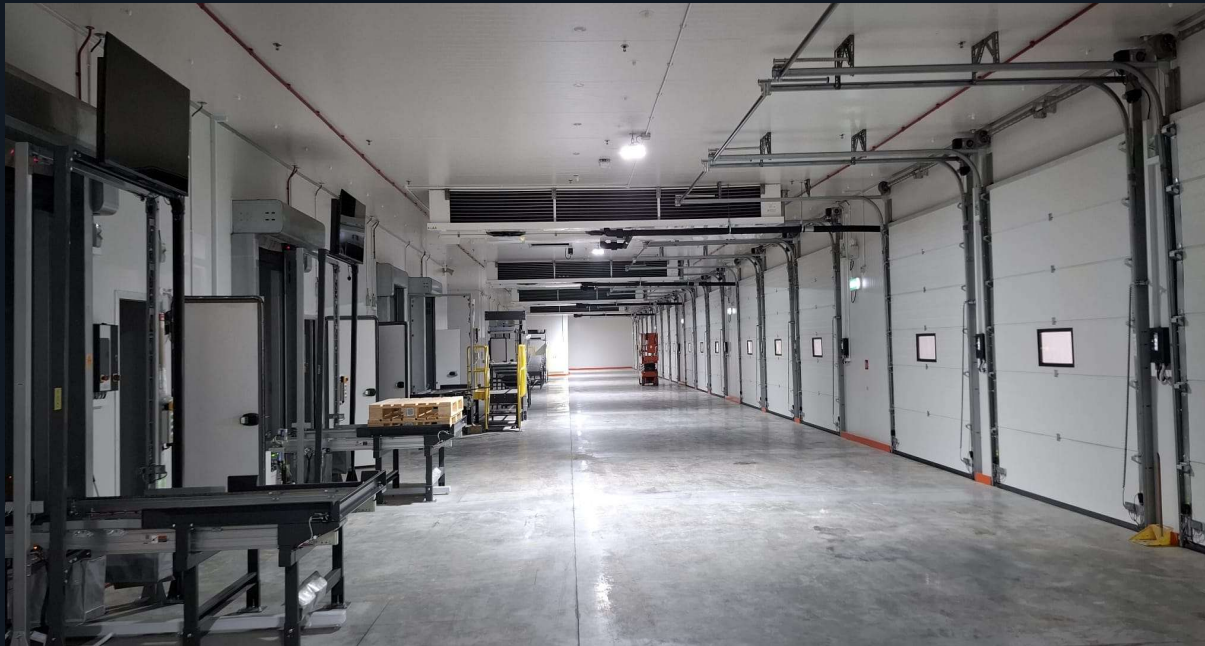


CLEANROOM

Controlled environment compatibility for selected applications.

PROJECT IMAGE GALLERY

This section is designed for APS project images, including cold room corridors, freezer room doors, industrial facilities and close-up hardware details.



INSTALLATION OVERVIEW

The installation concept remains generally the same for different swing door applications. Site adjustment may be required for opening size, panel interface and heater wiring where applicable.

STEP 01

FRAME POSITIONING

Position and align the door frame with wall panel opening.

STEP 02

DOOR MOUNTING

Install PIR panel door leaf and hinge system.

STEP 03

HEATER CONNECTION

Connect heater cable only where low-temperature protection is required.

STEP 04

SEAL INSPECTION

Inspect gasket compression and air sealing.

STEP 05

COMMISSIONING

Test door operation and final adjustment.



MAINTENANCE & SERVICEABILITY

Preventive maintenance supports stable door operation, improved sealing performance and reduced operational downtime.



FEATURE	SPECIFICATION
Heater Inspection	Required for low-temperature doors fitted with heater cables.
Gasket Replacement	Improved sealing efficiency.
Hinge Adjustment	Smooth door operation.
Surface Cleaning	Hygienic maintenance.
Preventive Inspection	Reduced downtime and service risk.

Maintenance requirements should be adjusted according to door usage frequency, site operating temperature and actual site conditions.

OPERATION & MAINTENANCE MANUAL

APS Swing Door Systems should be operated and maintained in accordance with site operating conditions, room temperature, door usage frequency and approved project requirements.

General Operation

- Open and close the door using the designated handle only.
- Do not force the door when gasket freezing or ice build-up is observed.
- Avoid keeping the door open for extended periods in low-temperature rooms.
- Ensure the door is fully closed after each use to maintain room temperature and sealing performance.

Routine Maintenance

- Inspect gasket condition and sealing compression regularly.
- Check hinges, handles and fixing points for looseness or misalignment.
- Clean door surfaces with suitable non-corrosive cleaning agents.
- For freezer applications, inspect heater cable function and electrical connection periodically.
- Remove ice build-up around the frame, gasket and threshold area when required.

Item	Recommended Frequency
Visual door condition	Monthly
Gasket and sealing check	Monthly
Hinge and handle inspection	Every 3 months
Heater system inspection	Every 3 months for cold rooms
Full preventive	Every 6 months or as required

Note: Maintenance frequency shall be adjusted according to actual door usage, operating temperature, humidity level and site conditions.

ENGINEERED COLD ROOM DOOR SOLUTIONS FOR INDUSTRIAL REFRIGERATION APPLICATIONS

APS Alliance Panel & System provides cold room systems, PIR panel swing and sliding door systems, insulated panels and industrial refrigeration enclosure solutions.

CONTACT INFORMATION

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Specifications are subject to final approved shop drawings, selected hardware configuration, and project-specific operating conditions. Heater requirements shall be confirmed according to temperature, humidity, door usage frequency, and actual site conditions.