

JAS-380

Aluminium Standing Seam Roofing System



www.jrp-holdings.com.sg

Product
Catalogue

ABOUT JRP

JRP, comprising JRP & Associates Pte Ltd and JRP R&D Pte Ltd (together "JRP"), is a leading regional specialist in metal roofing and aluminium composite panels. Since its establishment in 1999, JRP's business has grown from strength to strength with projects spanning across Singapore and Asia.

JRP's visionary statement "Together, Creates Future" refers to its goal to be a partner of progress. JRP earns the trust of its clients through a continuous effort to offer quality products and services, to become the region's most respected and trusted roofing and cladding specialist in building safe and progressive communities.

JRP's mission is to deliver quality output that far exceeds the expectations of its clients. This is satisfied through the high level of commitment that JRP gives to its clients – fostering trust among all parties affiliated with JRP, and upholding the integrity ascribed to the JRP's image.

Quality Solutions

JRP has a system of policies and procedures to guide its workflow in a systemic manner. Its Quality Assurance System maintains up-to-date information to ensure that its products and services are delivered according to its promises and even beyond clients' expectations.

JRP believes adopting a good quality system will result in cost reduction, eliminating abortive works and materials that could potentially arise without proper systems in place.

The main objectives of the Quality Assurance Systems are to ensure compliance with International Standard ISO 9001, ensure compliance with statutory and safety requirements and maintain a level of quality which maximizes customers' satisfaction.

Occupational Health & Safety Management

JRP & Associates Pte Ltd was awarded the BizSafe Star status by Singapore Workplace & Health Advisory Committee ("WSHAC") for delivering excellence in Workplace Safety & Health Management System. This is the result of the Company's consistent efforts to display effective and excellent workplace safety and health practices, whether it is on or off-site.

BSI has also accredited the Company with OHSAS 18001 Occupational Health & Safety System Certificate, recognizing its efforts in effectively managing occupational health and safety.

Doing Our Part for the Environment

JRP is committed to conducting its business operations in accordance with its own environmental policies as well as all applicable laws and regulations.

JRP strives to conserve natural resources through careful planning, efficient use of resources and minimizing waste through reduction and recycling. JRP commits to handle and dispose waste through safe and environmentally responsible methods and conduct regular environmental assessments to make necessary improvements.



WHY JRP?

JRP is one of Singapore's leading supplier for top quality aluminium and metal building products, with more than 20 years of experience in the industry.

JRP's premium roofing and cladding solutions comes in a wide array of colours and finishes that is aesthetically pleasing and perfect for any kind of building construction.





JAS-380

High Ribbed Standing Seam Roof

ABOUT THE PRODUCT

With its almost unrestricted formability, JAS-380 standing seam roofing system is designed to offer flexibility for architecturally demanding applications. JAS-380 is incredibly durable and displays excellent weather performance capabilities, making it suitable for any kinds of environment.

JAS-380's aesthetically pleasing design, with its high upstand ribs and micro-flute ribs on the pan, offers excellent water drainage capacity. JAS-380 utilizes a concealed clip fixing that does not puncture the sheet, allowing a clean and smooth appearance.

The lightweight nature of JAS-380 makes it easy to install. JAS-380 roofing sheets are installed on substructures by seaming the sheets to support clips using an electronic zipping machine.

TYPICAL APPLICATIONS

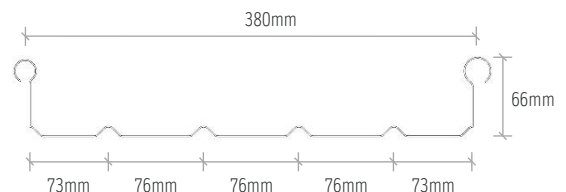
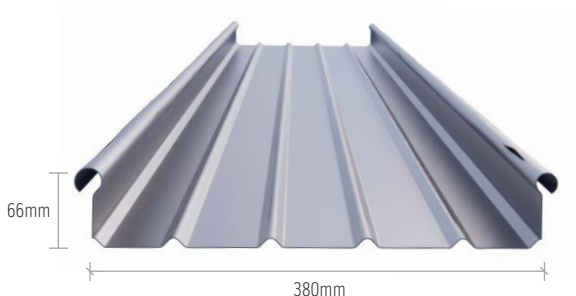
JAS-380 is ideal to be used for roofing and building facades, and can be either pitched, horizontal, vertical or curved. JAS-380 is ideal for large industrial and commercial buildings that require large roof spans.

Key Features

- Extremely strong and lightweight, ideal for large spans and commercial buildings
- Good structural integrity
- Aluminium alloy base material used is anti-corrosion and weather-resistant
- Excellent water drainage capacity, ideal for high rainfall intensity areas
- Concealed fixing with no exposed fixing elements puncturing the sheet
- Flexible design to suit the configuration and geometry of any building
- Roofing system can adapt to different thickness of insulation required, accommodating all kinds of environmental requirements
- Recyclable and reusable

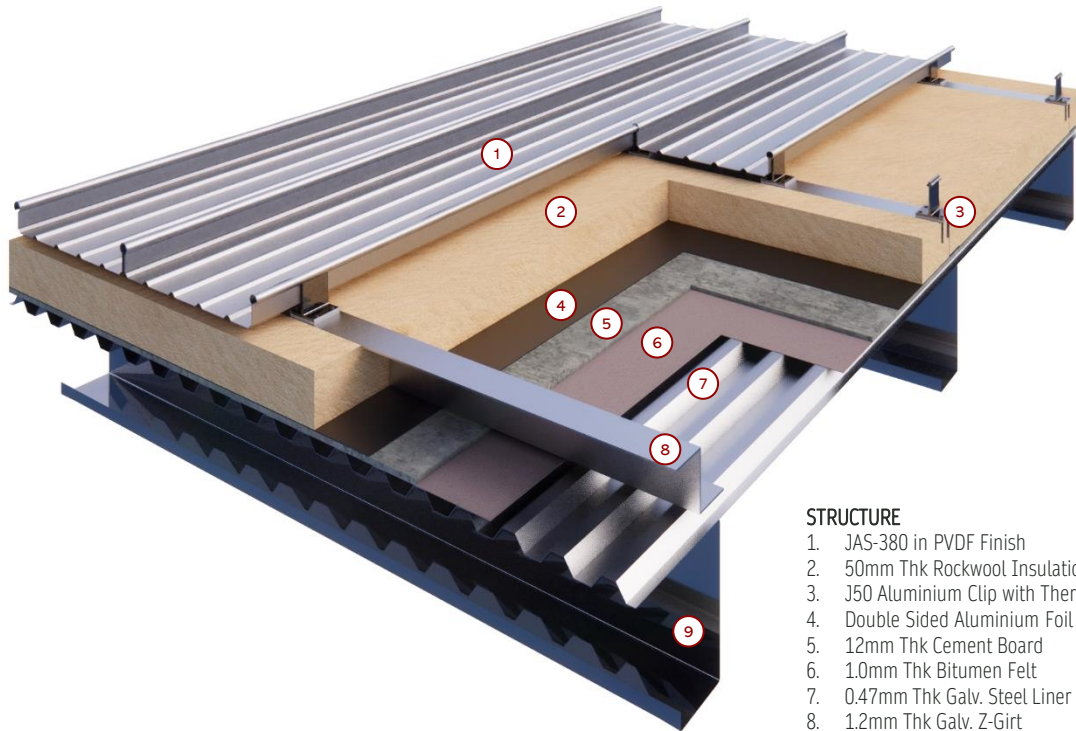
TECHNICAL DATA

ALUMINIUM				
THICKNESS				
Total Coated Thickness	0.7-1.0mm			
Effective Cover Width	380mm			
Rib Depth	66mm			
ROOF PITCH				
Min Recommended Roof Pitch / Slope	1.5°, 2.6%			
MATERIAL				
Grade of Metal (MPa)	3000 series			
Finishes	Pre-painted with PVDF 2 or 3 coating			
MASS	0.7mm	0.8mm	0.9mm	1.0mm
Mass per unit area (kg/m ²)	2.80	3.20	3.61	4.01
Mass per unit length (kg/m)	1.11	1.22	1.37	1.52
Coverage (m ² /tonne)	350	300	270	245
PRODUCTION & DELIVERY				
Packaging	In strapped bundles			
Custom Cut Lengths	Any transportable length can be made in factory, site rolling for longer lengths required			



TYPICAL STC 45 BUILT-UP

In accordance with ASTM E90-97



STRUCTURE

1. JAS-380 in PVDF Finish
2. 50mm Thk Rockwool Insulation
3. J50 Aluminium Clip with Thermal Barrier Pad
4. Double Sided Aluminium Foil
5. 12mm Thk Cement Board
6. 1.0mm Thk Bitumen Felt
7. 0.47mm Thk Galv. Steel Liner with PVDF Finish
8. 1.2mm Thk Galv. Z-Girt
9. Purlin By Steel Specialist

SOLAR CLADDING

Solar panels can be fixed onto JAS-380 standing seam roofing either parallel or perpendicular using a J-Clip without puncturing the roof.



ROOFTOP GARDEN

A drainage element and a layer of substrate and plant can be fitted on JAS-380 standing seam to form a rooftop garden, due to its high upstand rib and waterproof capabilities.





Tan Son Nhat International Airport Terminal 2 Expansion, Ho Chi Minh City

JAS-380

Sophisticated design that is highly flexible and lightweight, suitable for architecturally demanding applications

Flexibility in Application & Design

Architectural capabilities of JAS-380 are not limited to conventional or standard roofing configurations and designs. Rolling mill are available to produce smoothly curved, convex and concave panels customized to the needs of the architectural design, combining flexibility and performance into one system.

Concealed Fixing

JAS-380 utilizes exclusive clips to attach the sheets to the substructure. The special clips are locked into the overlapped seams of the JAS-380 sheets, such that the fixing elements are hidden under the roofing sheets. The sheets are then seamed onto the clips using an electronic zipper. This does not puncture the sheets, avoiding any potential leakages.

The special clips also overcome the problem of panel movement due to thermal contraction and expansion, compared to steel sheets which are fixed in place by more conventional methods. This increases the durability of the roofing system.

High Performance Water Drainage and Weatherability

The high upstand rib and micro-flute ribs on the pan allow the roofing sheet to discharge rainwater quickly and efficiently to the outer perimeters of the roof. JAS-380 is an excellent choice for high rainfall intensity areas.

JAS-380 roofing system meets the standards and requirements of the Static Water Penetration Test ASTM E-331.

Mobile Manufacturing

JAS-380 roofing sheets are fabricated using roll forming machines which are mobile and easily portable. The machine is housed in an 'ocean-going' container, which acts as the production platform.

The container is self-contained and equipped. It can operate anywhere, be it at the shop floor or job site.

Durable and Economical

The aluminium alloy base material used to fabricate JAS-380 is corrosion and weather resistant. It is not sensitive to UV rays and has a long lifespan. It also conforms to BS EN 485-2, BS EN 573-3 and BS EN 1396.

Aluminium is also non-flammable and can accommodate any kinds of environmental requirements.

Environmentally-friendly

All components of the JAS-380 roofing system are recyclable and have proven routes for recyclability. JAS-380 sheets can be unzipped to be reused or recycled.

Standard coated aluminium for JAS-380 typically contains 80% recyclable material. The remelting process uses only 5% of the energy required to produce the primary aluminium.

JAS-380 standing seam system contains no material which could be classified as hazardous to environment.

WIND PRESSURE CAPACITY (in KPa)

The wind pressure capacities are based on tests conducted at registered testing laboratory in Singapore. Testing was conducted in accordance with ASTM E-1592, "Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference". The following tables for wind pressure capacities (KPa) provide pressure versus span graphs for Serviceability and Strength Limit State Design. Serviceability Limit State is based on a deflection limit of: $(\text{span}/120) + (P/30)$, where P is the maximum fastener pitch.

The pressure capacities for Strength Limit State have been determined by cladding's ultimate capacity and capacity reduction factor of 0.90 is used for the design capacity of the sheeting.

Standard (Base Aluminium Thickness = 0.7mm)						
Type of Span	Limit State	Span (mm)				
		900	1200	1500	1800	2100
Single	Serviceability	0.19	0.13	0.10	-	-
	Strength	0.65	0.25	0.12	-	-
End	Serviceability	0.16	0.05	0.08	-	-
	Strength	0.55	0.10	0.10	-	-
Internal	Serviceability	0.22	0.24	0.20	-	-
	Strength	0.75	0.45	0.25	-	-

Standard (Base Aluminium Thickness = 0.8mm)						
Type of Span	Limit State	Span (mm)				
		900	1200	1500	1800	2100
Single	Serviceability	0.22	0.16	0.18	-	-
	Strength	0.85	0.35	0.25	-	-
End	Serviceability	0.19	0.11	0.11	-	-
	Strength	0.75	0.25	0.15	-	-
Internal	Serviceability	0.26	0.25	0.25	-	-
	Strength	1.00	0.55	0.35	-	-

Standard (Base Aluminium Thickness = 0.9mm)						
Type of Span	Limit State	Span (mm)				
		900	1200	1500	1800	2100
Single	Serviceability	0.26	0.20	0.22	-	-
	Strength	1.15	0.50	0.35	-	-
End	Serviceability	0.23	0.18	0.16	-	-
	Strength	1.00	0.45	0.25	-	-
Internal	Serviceability	0.34	0.31	0.32	-	-
	Strength	1.50	0.75	0.50	-	-

Standard (Base Aluminium Thickness = 1.0mm)						
Type of Span	Limit State	Span (mm)				
		900	1200	1500	1800	2100
Single	Serviceability	0.32	0.29	0.30	0.39	-
	Strength	1.50	0.75	0.50	0.45	-
End	Serviceability	0.27	0.25	0.21	0.22	-
	Strength	1.25	0.65	0.35	0.25	-
Internal	Serviceability	0.43	0.48	0.54	0.69	-
	Strength	2.00	1.25	0.90	0.80	-

MAXIMUM ROOF RUN (in metres)

Rainfall Intensity (mm/hour)	Roof of Pitch / Slope				
	1 in 29 (2 Degrees)	1 in 20 (3 Degrees)	1 in 12 (5 Degrees)	1 in 7.5 (7.5 Degrees)	1 in 6 (10 Degrees)
250	76m	86m	100m	113	124
300	63m	71m	83m	94	103
400	47m	53m	63m	70	77
500	38m	43m	50m	56	62

MAXIMUM ALLOWABLE LOADING (in KPa per mm)

Roof Span	Aluminium Thickness			
	0.7mm	0.8mm	0.9mm	1.0mm
1800	0.55	0.65	0.75	0.90
1500	0.55	0.65	0.75	0.90
1200	0.75	0.80	1.00	1.70



JRP & Associates Pte Ltd
JRP R&D Pte Ltd
T : (65) 6842 0606
F : (65) 6842 0660
www.jrp-holdings.com.sg

Contact Us
sales@jrp-holdings.com.sg



Scan QR code to
find out more