Catalogue

JAS-380

Standing Seam Roofing System

www.jrp-holdings.com.sg

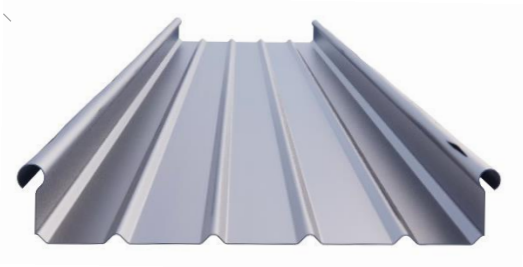
JAS-380

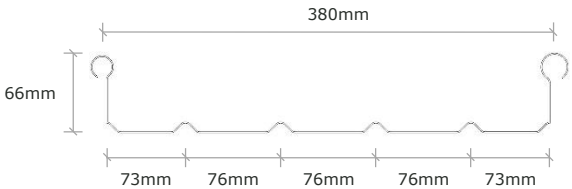
High Ribbed Standing Seam Roof

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.





KEY FEATURES

- Extremely strong and lightweight, ideal for large spans and commercial buildings
- 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
- Recyclable and reusable

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

Flexibility in 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 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 Water Drainage Performance
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 non-flammable and can accommodate any kinds of environment.

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 produced the primary aluminium.

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

Noi Bai International Airport Terminal 2, Vietnam

Physical Properties

MATERIAL	Steel		Aluminium			
Grade of Metal (MPa)	G300-450		3000 series			
Finishes	Zn Al Alloy Coating		PVDF 2 or 3 Coating			
THICKNESS						
Total Coated Thickness	0.48-0.61mm		0.7-1.0mm			
Effective Cover Width	380mm					
Rib Depth	66mm					
ROOF PITCH						
Min Recommended Roof Pitch	1.5", 2.6%					
MASS	**0.48mm**	**0.61mm**	**0.7mm**	**0.8mm**	**0.9mm**	**1.0mm**
Mass per unit area (kg/m^2)	5.55	6.95	2.80	3.20	3.61	4.01
Mass per unit length (kg/m)	2.10	2.64	1.11	1.22	1.37	1.52
Coverage (m^2/tonne)	180	144	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					

Material Finishes

JAS-380 is manufactured in Aluminium or Steel.

All aluminium substrates used for JAS-380 are from the same 3000 alloys used throughout the industry and conforms to BS EN 485-2, BS EN 573-3:1995 and BS EN 1396:1997. Steel alloy used are G300-450 pre-painted steel, which combines the superior strength of steel, corrosion resistance and protection of Zinc Aluminium alloy coating, giving it long lasting beauty with excellent colour retention.

Tampines West MRT Station, Singapore

Wind Pressure Capacity

The wind pressure capacities (kPa) 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: (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.

STEEL

Standard (Base Metal Thickness = 0.61mm)						
Type of Span	Limit State	Span (mm)				
		900	1200	1500	1800	2100
Single	Serviceability	0.68	0.61	0.57	0.64	0.62
	Strength	1.50	0.75	0.45	0.35	0.25
End	Serviceability	0.57	0.53	0.44	0.45	0.37
	Strength	1.25	0.65	0.35	0.25	0.15
Internal	Serviceability	0.91	1.01	1.14	1.27	1.24
	Strength	2.00	1.25	0.90	0.70	0.50

ALUMINIUM

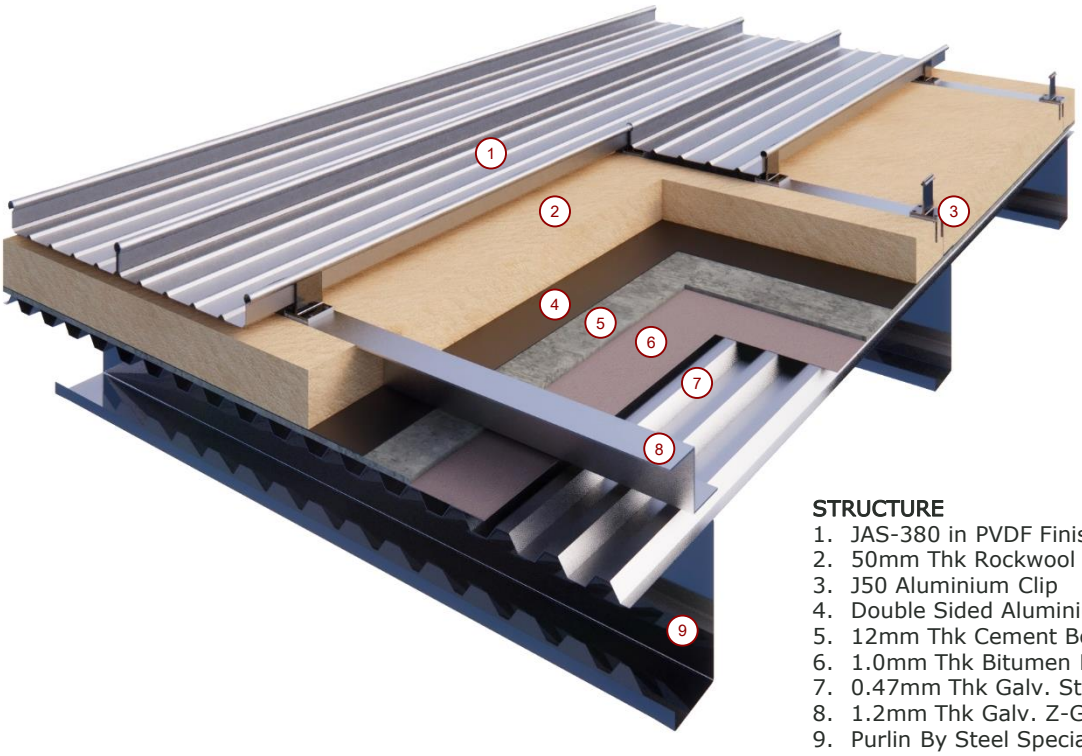
Standard (Base Aluminium Thickness = 0.7mm)						
Type of Span	Limit State	Span (mm)				
		900	1200	1500	1800	2100
Single	Serviceability	0.19	0.13	0.10	-	-
	Strength	0.65	0.25	0.12	-	-
End	Serviceability	0.16	0.05	0.08	-	-
	Strength	0.55	0.10	0.10	-	-
Internal	Serviceability	0.22	0.24	0.20	-	-
	Strength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

Acoustic Roof System (STC45)



STRUCTURE

1. JAS-380 in PVDF Finish
2. 50mm Thk Rockwool Insulation
3. J50 Aluminium Clip
4. Double Sided Aluminium Foil
5. 12mm Thk Cement Board
6. 1.0mm Thk Bitumen Felt
7. 0.47mm Thk Galv. Steel Liner
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.

Together, Creates Future

ABOUT JRP

JRP, comprising JRP & Associates Pte Ltd and JRP Supplies 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 Quality Assurance System of policies and procedures to guide its workflow in a systemic manner. The main objectives of the Quality Assurance System 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 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 in accordance with its own environmental policies and 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.

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