

# SAS

SPECIAL SCAFFOLD SYSTEM

by silara akses



# Introduction

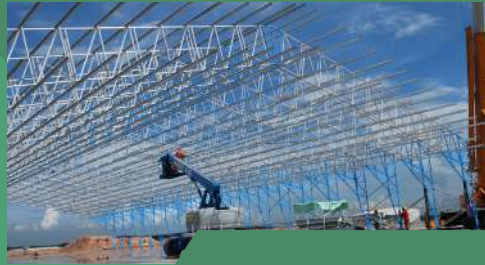
The Silara Akses Special Scaffold System, or **SA3S**, represents a cutting-edge modular structural frame, seamlessly blending lightweight aluminium alloy with high-strength steel. When combined with standard Silara Akses components, these frames come together to create versatile spaceframe structures for a myriad of applications. From access platforms to roof trusses and complete shelters or building structures, the possibilities are limitless.

When confronted with challenges related to access and scaffolding, our SA3S offers tailored solutions that excel, particularly in scenarios where elevated access demands extensive resources. These challenges may involve complex requirements, a significant amount of floor space, and a considerable labour force. Our SA3S is a game-changer. This system enables mobile suspended platforms or platforms positioned on scaffolding towers, effectively eliminating the need for extensive ground-based access.



# Features

At Silara Akses we strive for efficiency right from design, manufacturing, and construction phases through the philosophy of lean thinking. We continuously seek for improvement in our processes so that we can deliver real value to our customer.



## Industrial

- Bridge maintenance over canal
- Elevated highway
- Railway/ MRT station
- Mega structures

## Energy

- Power station maintenance
- Offshore structures
- Marine yard

## Civil/Commercial/ Defence

- Temporary footbridge
- Emergency bridge
- Building façade/ roof access
- Canopy Walkway

# Advantages



<b>Cost-Effective Excellence</b>	Our truss system redefines efficiency by reducing the volume of ground-level materials, leading to cost savings without compromising quality.
<b>Access without Interruption</b>	In bustling high-traffic locations, the system eliminates the need for road or public access closures, ensuring smooth operations even in crowded areas.
<b>Optimized Space Utilization</b>	By elevating platforms, valuable space below becomes available for other contractors, facilitating parallel work and enhancing project efficiency.
<b>Accelerated Project Delivery</b>	With concurrent activities and reduced access limitations, projects move faster, resulting in timely project completion.
<b>Modular Flexibility</b>	The structure's modularity allows for easy extensions, relocation, and swift installation, ensuring adaptability to evolving project needs.
<b>Tailored for Your Needs</b>	Select from a range of width, height, and length options to tailor the system precisely to your project requirements, optimizing its utility.

## Our Services

For special and complex scaffolding schemes, we offer a full and complete service, from concept development through assembly and dismantling at the end of the project. We understand that complex scaffolding requires high technical solutions during the design stage and fully trained scaffolders during the assembly & inspection stages. This is why we do not take shortcuts in delivering any special scaffold solution. With these complete services, we ensure that our clients can rest assured that the project is well managed and that they can focus on their core businesses.

# Our Services



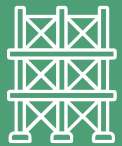
### Engineering Design:

We provide comprehensive engineering support and drafting services tailored to specific client schemes. Our approach incorporates cutting-edge CAD and FEA software to enhance project efficiency. We utilise software such as AutoCAD, Robot Structural Analysis and Solidwork Simulation to bring the concept to reality. On top of that, where necessary, we utilise Augmented Reality (AR) and 3D printing to communicate our concept to clients.



### Delivery:

Our delivery process has been significantly streamlined, making site delivery remarkably smoother and more efficient. This is achieved through the utilisation of modular frames, which can be strategically arranged on trucks for optimal and safe transportation.



### Assembly:

Our assembly procedures are meticulously organised and standardised, ensuring a clean and secure process that facilitates swift assembly. Each modular frame can be easily handled by 1 or 2 workers, minimizing the need for extensive crane usage. Additionally, trusses can be partially pre-assembled at our warehouse, reducing on-site assembly requirements.



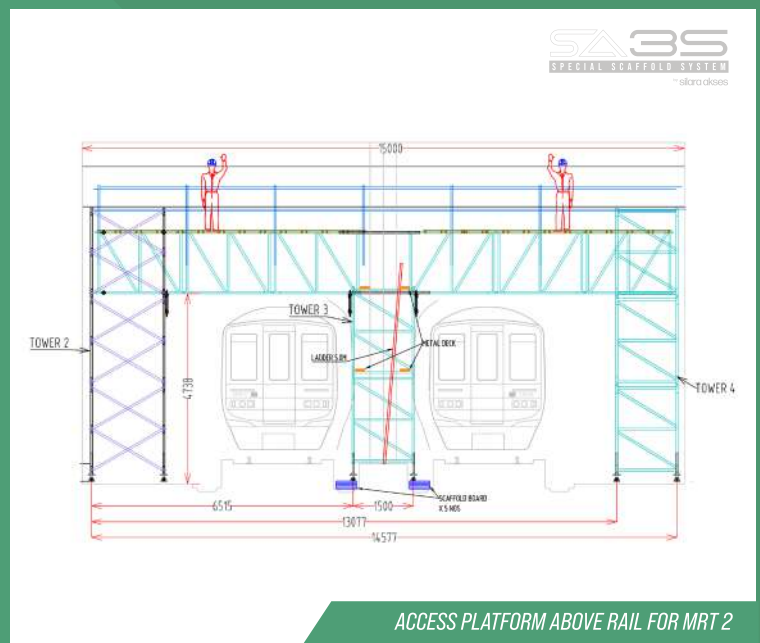
### In-Service:

Thanks to the remarkable corrosion resistance of the aluminium alloy and the protective galvanised or powder-coated steel, our structure boasts minimal maintenance needs, ensuring extended service life. To ensure peace of mind, our dedicated inspector will conduct routine weekly inspections to ensure nothing is taken lightly.



### Decommissioning

Our Special Scaffold System (SA3S) excels when it comes to relocating or expanding your setup. The disassembly process is both efficient and straightforward, with the majority of components and parts being eligible for reuse at a new location.

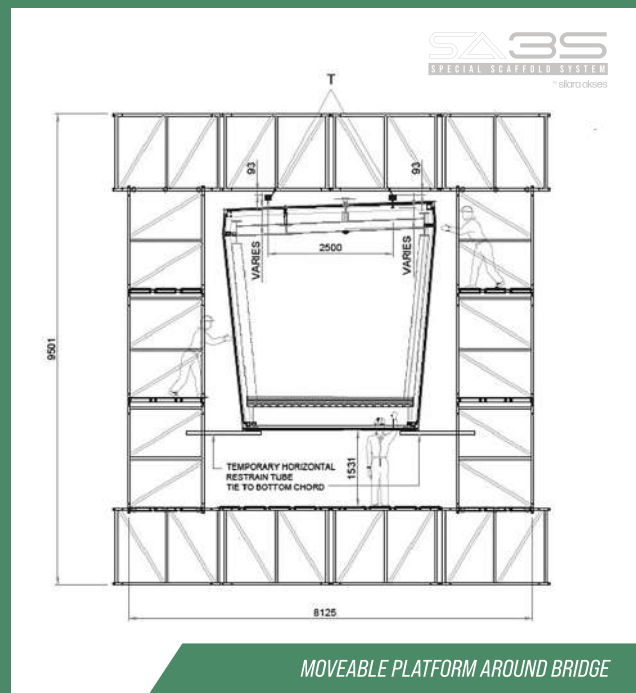


ACCESS PLATFORM ABOVE RAIL FOR MRT 2

# Main Applications

Our specially designed scaffolds are the answer to diverse construction needs. Tailored for specific purposes, they redefine access, safety, and efficiency.

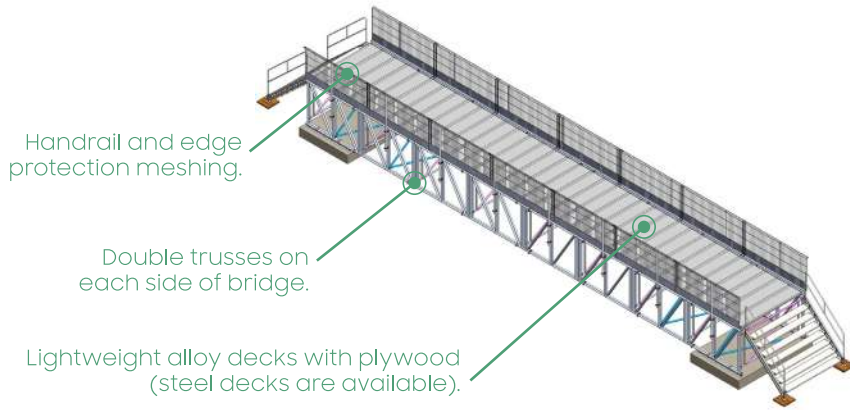
Lightweight Scaffold	Scaffold designed to be easily transportable and assembled, typically used for tasks requiring temporary access at different heights.
Platform & Bridge	Versatile platform that can also function as a bridge, providing safe access between structures or areas.
Suspended Platform	Platform that hangs from ropes or cables, commonly used for work at heights where traditional scaffolding might not be feasible.
Large Span Platform	Platform with an extended width, used to cover larger areas, often encountered in industrial settings.
Façade Access	Specialized access equipment designed for reaching and working on the exterior surfaces of buildings, including cleaning and maintenance.
Crash Deck	Safety platform used to protect workers from falling objects and debris during construction or demolition activities.
Temporary Footbridge	Bridge designed for temporary use, providing safe passage for pedestrians during construction, events, or emergency situations.
Emergency/ Disaster Relief Bridge	A quickly deployable bridge used in emergency situations to restore transportation routes.
Curved Platform	Platform designed to fit curved or irregular surfaces, enabling access to complex architectural features.
Special/Complex Access	Custom-designed access solutions tailored to unique project requirements, such as unconventional structures or difficult-to-reach areas.
Bridge Refurbishment Access	A versatile platform that can also function as a bridge, providing safe access between structures or areas.
Railway/MRT Maintenance	Equipment and scaffolding designed for maintenance and repair work on railways and Mass Rapid Transit (MRT) systems.
Power station Maintenance	Scaffolding and access solutions for maintenance, repairs, and inspections within power stations and related facilities.
Offshore Maintenance	Access equipment and scaffolding used for maintenance and construction work in offshore environments, such as oil rigs and wind farms.



MOVEABLE PLATFORM AROUND BRIDGE

# Instant Bridge & Footbridge

Our specially designed scaffolds are the answer to diverse construction needs. Tailored for specific purposes, they redefine access, safety, and efficiency.



## Bridge Assembly

No crane is required during assembly as all frames and decking are lightweight (<20 kg ea.) and can be manhandled by two operators on ground level.

Bracings and gates with clip-on hooks for easier assembly.

The whole assembly can be lifted up and positioned onto a prepared support foundation.

# System Capability

Safe working load table for single, simply supported truss.

- Note:**
1. Top chord restraint Interval =1.0m
  2. All loads are safe working loads and allow for self-weight, including decks.
  3. The loading table is provided as a guide only and assumes all loads are applied at the nodes. All structures should be checked by a qualified structural engineer.

<b>Factored Moment Capacity</b>	108	KN. m
<b>Factored Shear Capacity</b>	21	KN

Span (m)	6	8	10	12	14	16	18	20	22	24	26	28	30
Single point load, mid span (kN)	41.3	41.3	41.3	34.6	29.3	25.3	22.1	19.5	17.4	15.5	14	12.6	11.4
Two Point Load, third span (kN)	20.6	20.6	20.6	20.6	20.6	19	16.6	14.6	13	11.6	10.5	9.4	8.5
Three Point Load quarter span (kN)	13.8	13.6	13.8	13.8	13.8	12.6	11.1	9.8	8.7	7.8	7	6.3	5.7
Uniformly Distribute load (kN/m)	6.9	5.2	4.1	3.4	2.9	2.6	2.3	2	1.6	1.3	1.1	0.9	0.8
Total UDL (kN)	41.3	41.3	41.3	41.3	41.3	41.3	41.3	39	34.7	31.1	27.9	25.1	22.7

# Projects



TEMPORARY EVENT STRUCTURE



PLATFORM ABOVE RIVER SPAN



SUSPENDED PLATFORM



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