



CASE STUDY

Reference: Kool Solutions India
Safety as a priority

ssi-schaefer.com



KOOL SOLUTIONS - WELL-EQUIPPED TO MEET ALL REQUIREMENTS OF A-LIST CUSTOMERS

Incorporated in September 2012, Kool Solutions is a partnership jointly owned by Samsara Capital Group in India and Spire Group Limited in Toronto, Canada. Samsara, a privately held Mumbai-based investment company, brings to the partnership its expertise in real estate and land development in India, while Spire has over 30 years of experience in the cold storage business and operations in North America, New Zealand and Eastern Europe.

As the cold storage business in India was expanding and most existing cold stores were old and labour

intensive, Kool Solutions picked Mumbai, India's economical capital, as the location for its first venture.

In 2017, Kool Solutions built a refrigerated warehouse with 6,000 pallet positions in Taloja with controlled temperature ranges of -25°C to +20°C to provide storage for ambient, chilled and frozen food, from fruits, vegetables and meat to food enzymes and pharmaceutical products. In 2020, the market situation triggered the initiative to increase the warehouse storage capacity to 10,000 pallet positions to meet increasing demand.

Strategically located within a close proximity to the largest container port in India - Nhava Sheva, Kool Solutions' newest facility is prepared to accommodate with a huge volume of import and export chilled and frozen goods.

Part of a bigger cold chain network for food exports, India is the largest exporter of surimi, a fish paste which is exported to Japan and China to be further processed into artificial crabmeat and lobsters.

The company also provides storage for Indian-based companies as well as imports of fruits and active pharmaceutical ingredients.

"Indian customers are becoming more and more international, and they are finding it very difficult to operate in age-old cold storage warehouses," said CEO of Kool Solutions India, Anand Aryamane.



PREMIUM PLACED ON SAFETY AND QUALITY



To ensure that the new warehouse operates at a steady clip, Kool Solutions mandates a strong emphasis on quality and safety.

“We engaged consultants and even a metallurgist from the US to analyze the materials that we planned to buy for this new warehouse, and SSI SCHAEFER was shortlisted in terms of its product quality. We decided to engage SSI SCHAEFER as our rack supplier for the warehouse.” Said Mr Aryamane.

The Warehouse is equipped with seismic-proof Selective Pallet Racks, Double Deep Racks and Drive In Racks by SSI SCHAEFER. The racking system is checked regularly by SSI SCHAEFER warehouse safety inspector. Mr Aryamane appreciates the value of inspection by a SSI SCHAEFER trained expert who scrutinizes the racking system to ensure any damage is brought to the attention of Kool management.

On the topic of how safety practices fit into Kool’s Solutions logistics operation, Mr. Aryamane proudly

declares that “overloading of racks, a prime cause for rack failure, is not an issue at Kool Solutions. We have designed the pallet positions for 1.2 tons to ensure safe working loads. In India, cargo can exceed one ton per pallet. Typically, the pallet position always volumes out rather than weights out. In the event of a pallet weighing more than 1 ton, the lift equipment gives a live alarm to the operator. However, static racks cannot trigger any form of overloading signal, whereas the lift equipment does, thus, this ensures that no racks are overloaded at any time.”

The attention to detail is something that all of Kool’s customers appreciate. Organizations which contract with Kool Solutions for its warehousing requirements conduct audits of various components in the warehouse, which includes the racking system. After the detailed analysis, most or all of the customers of Kool Solutions agree that the rack structure is safe and compliant with the European Standard - EN 15635 for racking system. This is one of the reasons why they choose to store their products with Kool Solutions.

REGULAR MAINTENANCE TO ENSURE RACK INTEGRITY

Given the importance the company mandates to safety, SSI SCHAEFER continues to support Kool Solutions by undertaking periodic checks to ensure the system follows the European Standard EN 15635 for operational aspects relevant to structural safety of storage systems.

THE SSI SCHAEFER INSPECTORS WILL ENSURE THAT:

- The quality, size and type of pallets used are suitable for the racking system.
- There is good load stability with no load overhang.
- The material handling system used is in sync with the racking system.
- The deviation between beam levels, original design, floor fixing, fixture and use of safety locks are indicated.
- Beam deflections, damage to the frames, beams, pallet rails, column guards and floor are identified.
- Uprights are calibrated for straightness.



All observations and results including defects and required improvements are documented in SSI SCHAEFER’s Computerized Management System tool and the report is reviewed jointly with Kool for further action.

RINGING ENDORSEMENT FOR SSI SCHAEFER

Mr. Aryamane is very pleased with Kool’s storage system and ready to endorse SSI SCHAEFER in the future. “This is our first warehouse that we have implemented together with SSI SCHAEFER. Moving forward, Kool Solutions will continue to use SSI SCHAEFER. I am confident SSI SCHAEFER will provide the best products to suit Kool Solutions’ requirements.”

At SSI SCHAEFER, customer satisfaction is our priority. Kool Solutions was looking for a suitable storage system designed with international recognized safety standards and SSI SCHAEFER stood out among our competitors on this parameter. We engaged through several discussions and meetings with Kool Solutions’ Warehouse Consultant, Operations and Technical team to understand their storage requirements in detail. Our safety engineers also conducted various safety training sessions with staff members of Kool Solutions who appreciate the importance of following safety design and standards. The global experience, solution design and engineering

excellence of SSI SCHAEFER, used to design a safe storage solution within the temperature zone of -18°C, have helped Kool Solution to trust us. Moreover, it is the promise of on-time delivery, customer service and 24/7 after-sales support that has received appreciation from Kool Solutions’ Management. SSI SCHAEFER India is thankful to Kool Solutions’ team for all their support and appreciation.

Suнил Dabral
Executive Director SSI SCHAEFER INDIA



ABOUT SSI SCHAEFER WAREHOUSE SAFETY CAMPAIGN

Rack safety inspection and procedures

To ensure the racks and shelving in our customers' warehouses are safe to be in operation all year round, we encourage our customers to work with our racks safety officers to maintain and improve the existing storage systems. Safety enhancements will improve the efficiency in everyday warehouse operation, comply with European Standards (EN 15635) and ensure the ongoing performance of the storage system.

What is the European Standard (EN 15635)?

This European Standard gives guidelines for operational aspects relevant to structural safety of storage systems within Europe. Such systems operate with heavy mechanical handling equipment working in close proximity to static storage equipment. This European Standard minimizes the risk and consequences of

unsafe operation or damage to the structure. Some other forms of storage equipment are only partially covered and further consideration, beyond the scope of this European Standard, can be required. To learn if your installations comply with standards, contact us for more information.

How are rack and shelving inspection done?

Although the term inspection might sound overwhelming, the importance of inspections and the results, can not be underestimated; they can make the difference between having a safe warehouse operation and one where accidents and issues can be fatal. A passed or failed inspection of storage systems can also be one of the key fundamental drivers to having an effective and reliable supply chain.

- Rack inspection is carried out by our own officially certified racking system inspectors via a visual control.
- The observation and results are documented within our Computerized Maintenance Management System (SSI SCHAEFER CMMS) tool and indicated by an inspection badge.
- All relevant information, observations, identified defects/ needed improvements including respective photos are digitally stored within the SSI SCHAEFER CMMS App.
- Finally, all recorded data is summarized right away in an automatically generated PDF report.
- The report is reviewed together with you to talk about actions and solutions to address gaps/issues.
- Additionally, the digitally stored data can be visualized and analyzed to derive profound conclusions.



To learn how we conduct our rack inspection, please scan the QR Code for more information.

Check for damage you may have missed

Lastly, check for damage you may have missed. Certain damage to your racking system may not be immediately visible and require closer inspection. Play it safe and check for damages in the following areas:



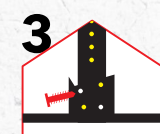
UPRIGHTS

- ✓ Use only **qualified forklift truck drivers** and ensure that they work within their capabilities.
- ✓ Ensure layout of racking system has **adequate aisle widths** and that the aisles are free from obstruction.
- ✓ **Check storage equipment regularly** for any damages and for safety.



BRACING

- ✓ Bracing should be **installed in accordance with the manufacturer's instructions** at all specified positions and shall not be removed or repositioned.
- ✓ **Ensure safe usage of material handling equipment** by applying risk analysis techniques.



BASE PLATE

- ✓ Ensure base plates are in **contact with the entire floor area of the building or any prepared plinth**.
- ✓ Base plates should be **packed up with suitable steel shimming or grouting** under the entire planned area of the base plate. Specialists shall carry out the grouting.
- ✓ Steel shims should be **permanently installed under the base plates** or, if preferred, sufficiently strong and shrink-proof mortar can be injected under the base plates.



BEAMS

- ✓ Implement a regime of **careful, regular monitoring and maintenance**.
- ✓ Identify and rectify any damage promptly.



MATERIAL CRACKS

- ✓ Beams or connectors showing any signs of cracking should be **unloaded and expert advice sought from the equipment supplier**.
- ✓ Damaged components should be replaced rather than repaired. Repairs to damaged components are **allowed only when approved by the equipment supplier**.



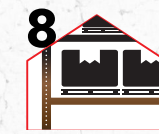
OVERLOADING

- ✓ Load racks only within the **specified capacity limit**.
- ✓ Beams will deflect under normal circumstances and loading conditions to a maximum limit of span/200. This **deflection is elastic and should disappear when unloaded**.



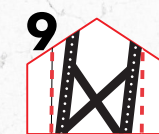
SAFETY LOCKS/PIN

- ✓ Any **missing or damaged locking devices** should be **replaced immediately** to prevent accidental dislodging of beams.
- ✓ A supply of **beam locking devices** shall be held in stock on site.



RUST

- ✓ Keep the indoor warehouse environment **dry and well ventilated**.



OUT OF VERTICALITY OF UPRIGHTS

- ✓ Ensure the out of verticality under load for all shelving and forklift truck rack installations, **does not exceed 1/200**. If exceeded, the supplier should be called **on site for an inspection and design check**.



CONDITION OF THE BUILDING FLOOR

- ✓ The building floor shall have a **degree of strength, stiffness, surface levelness and flatness suitable for operational purposes**.
- ✓ Safe load carrying capacities can change if storage equipment is relocated or if there is an increase in floor deformation. Consult an expert to determine a safe design of storage equipment **suitable for the load carrying capacity of the floor**.

By being proactive and regularly checking for damage, accidents can be avoided to create a safer warehouse for all.



SIX REASONS FOR CHOOSING SSI SCHAEFER

- **Stability**

As a financially independent family business, SSI SCHAEFER is committed to long-term solutions. You can trust that our team of experts will be there for you today, tomorrow and in years to come.

- **Efficiency**

SSI SCHAEFER solutions are scalable and able to grow with your business. You can always upgrade or retrofit.

- **Quality**

As a systems specialist and original equipment manufacturer, SSI SCHAEFER provides tailor-made and high-quality solutions from a single source, specifically designed to meet your challenges.

- **Reliability**

Thanks to our worldwide Customer Service & Support network, SSI SCHAEFER ensures smooth operation of your system, both during and after installation.

- **Know-how**

SSI SCHAEFER solutions are always up-to-date with the latest technological standards and can be easily integrated into an existing (IT) landscape.

- **Internationality**

As a global organization, SSI SCHAEFER has local offices worldwide. With over 70 operative subsidiaries, our team of experts speak your language.



[ssi-schaefer.com](https://www.ssi-schaefer.com)

© SSI SCHÄFER

We reserve the right to make technical changes to all products shown in this document. Product colours may differ from the original due to printing processes. We assume no liability for typographical errors.

SSI SCHAEFER