

Monde Nissin Corporation, Philippines

Dexion creates a winning solution for leading Philippines FMCG company: with more capacity per square metre, faster throughput – and designed to withstand earthquakes!

Impressive Expansion

Monde Nissin is one of the leading manufacturers of perishable consumer goods in the Philippines, known for its iconic Filipino instant noodle brand *Lucky Me!* as well as other leading biscuit and snacking products.

From small beginnings, the company has gone through a rapid expansion in recent years, with average growth in volume between 10-15% over the last ten years, the equivalent of an additional 15-20,000 cartons a day. Already existing in over thirty countries, the company is now looking to expand further in the Asia Pacific region.



Monde Nissin
CORPORATION

Monde Nissin Head of Operations J M Abueg stated, “We need not only a warehouse with the capacity to contain our products, but also with the required throughput.”

To that end, Monde Nissin wanted to build a new warehouse that would allow pallets to be stacked up to 30m high, and retrieved quickly and efficiently. Higher stacks mean greater capacity and better utilisation of warehouse floor space.

Tailored Solutions

This is where Dexion came in. The Dexion 808 racking system has the flexibility to construct facilities up to 30m high – much higher than most conventional systems. Moreover, it can be used both in automatic storage and retrieval systems (ASRS), as well as in a range of mezzanines and other similar applications.

Superb Seismic Performance

Dexion and Monde Nissin did however face one major challenge; the Philippines sit in the middle of the seismically unstable ‘Pacific Ring of Fire’. As a result, the country experiences frequent seismic and volcanic activity, which can range from minor tremors to major earthquakes.

Any storage system would need to be able to withstand these forces. That applies both to the rack itself and the goods stored on it. Racks can pose serious safety hazards if they collapse, even partially, or overturn. Contents too can pose hazards if they become dislodged and fall onto areas accessible to people working. Any serious damage could affect the ability of the storage system to operate effectively.

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Fortunately, Dexion had the answer to this challenge, designing and putting together a project in which seismic safety was a central element. Damian Cross, Regional General Manager of Dexion South East Asia stated, "It is crucial that our Dexion products do not fail in the event of a major natural disaster." And not only to protect life and limb, but also to ensure that Monde Nissin, as a key food and beverage supply chain provider, could provide support in such an event.

All this required some complex seismic engineering. Monde Nissin Head of Operations J M Abueg explained, "The design needed to take into account how the racks (and their contents) would move at given magnitudes of tremors or earthquakes, and also ensure sufficient clearances between the racking and the building itself in order to protect the latter in case of a major seismic event."

The result was a project involving the design, engineering, manufacturing, shipping and installation of an ASRS with a total of 12,200 pallet positions. The design engineering alone took more than 700 hours, while the final structure contained 738,640kg of steel (or the equivalent of about 2.5 Airbus airplanes). To ensure that the structure met the most stringent seismic requirements of the Federation of European Manufacturers (FEM), special linking interfaces were used between the racking systems, together with bracing towers every three bays wide. The storage and retrieval machine also meets similar high seismic standards.



Thanks to this extensive design and engineering work, the finished ASRS will be capable of surviving a severe earthquake, without collapsing. It will also be able to remain operational for more frequent, but less severe seismic events, a key requirement for Monde Nissin and its many customers.

Ease of Installation and Assembly



Despite the extensive design and engineering work involved, the installation and assembly of Nissan Monde's new racking system was extremely smooth and trouble-free. Azli Yusof, Project Realisation Manager of Dexion South East Asia explained, "This too was in large part due to the design and technology involved. One of the many advantages of the Dexion 808 system is that it allows the racking system to be built block

by block, from the ground up. Only nuts and bolts are used in the final assembly (albeit 462,500 of them in this case!). This allows for faster and safer installation, which is exactly what occurred with Nissan Monde's new warehouse."

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Partnership

Monde Nissin Operations Manager J M Abueg highlighted that Dexion had shown Monde Nissin how to optimise the use of space on their 7,000 square metre facility. While most conventional racking systems can only extend up to six or seven levels high, Dexion's 808 Racking system with ASRS allows up to 15 layers of pallets. This produces a tripling of the velocity of throughput, with pallets being retrieved in as little as 30 seconds to one minute.

According to J M Abueg, Monde Nissin will look to Dexion again if, as they expect, they need to add further racking capacity to their warehouse in the near future as the company continues to grow.

The overall impacts on Monde Nissin's business are tangible and powerful. Less time spent handling merchandise, lower manpower needed to operate the facility, coupled with increased throughput, not only boosted the company's capacity & efficiency but also their response times to customers.

Damian Cross, Regional General Manager of Dexion South East Asia said, "This project was superbly executed thanks to Dexion's global presence, local knowledge and technical expertise. It is truly a world class project that everyone can be proud of."