

# Speedlock Shelving

---

Heavy Duty Storage





# Speedlock<sup>®</sup> The ultimate racking system.

If you're in the supply chain business, now more than ever, you have to deal with ever more stringent levels of compliance scrutiny. For the first time in almost twenty years the standard that governs racking in every warehouse and distribution centre has fundamentally changed. Though its predecessor was tough, AS4084:2012 now stands as arguably the most demanding code in the world. The obligations are more rigorous, the testing more onerous and the need to rectify damage more immediate.

Any commercial business considering a new facility, or upgrading an existing one, will want to future-proof their investment to ensure compliance to the new standard.

Which is why an ongoing investment in Speedlock will prove to be beneficial. Speedlock was developed using the global resources of the Dexion network, this racking system has been designed and tested to meet both Australian Standard AS4084:2012 and European Standard 15512:2012 (formerly FEM).

Assessed under the independent eye of University of

Technology, Sydney (UTS), each of our beams, uprights, baseplates, splices and frames and their size variations have been tested.

Under the rigorous testing schedules of the new standard, this systematic approach to compliance will bring you peace-of-mind.

Speedlock delivers state of the art technology in component design. An extensive range of beam options provide greater design versatility and class leading load carrying capacity. Five-point connectivity provides extreme robustness at each bearing point. While Dexion's benchmark post-sale service keeps your assets in shape for future challenges.

For businesses with an expansive outlook, Speedlock is ideal. Today's Dexion is regionally positioned with a competitive offer to support you wherever your business may be. Speedlock component synergies across the region allow us to leverage this to your advantage.

From a global perspective, Dexion has installed over one billion pallet positions, setting the bar high for others to follow.





Over 1000  
independent tests.

## Testing procedures.

During a 6 month period, extensive independent testing was conducted on Speedlock components. Over 1000 tests were conducted to determine the material properties of Dexion's components. The results of these tests are evaluated by Dexion's engineers to determine the structural performance of the components. The following tests were conducted.

### Tensile test.

Determines the strength of the steel ensuring the accuracy of calculations.

### Upright stub column.

Stub column tests are used to help determine the ultimate strength of the uprights.

### Upright long column.

The long column tests determine the axial load capacity of the upright taking into account the influence of buckling.

### Upright splice.

Determines the stiffness and strength of splices between upright sections.

### Frame shear stiffness.

Determines transverse shear stiffness per unit length of upright frame to assess the stability and shear strength of the frame.

### Beam end connectors.

**Bending:** Measures the bending strength of a beam and beam rotation about its longitudinal axis.

**Shear:** Measures the shear strength of the connector and the connector lock.

**Looseness:** Obtains a value of the looseness of the connection for use in the design calculation.

### Baseplate.

Measures the moment-rotation characteristics of the connection between the upright and the floor across a range of axial loads up to the maximum design strength of the upright.

Tried and tested for  
AS4084:2012  
and  
EN:15512:2009  
compliance.

**Each component in the Dexion range has been designed and independently tested for Australian Standard AS4084:2012 and European Standard 15512:2009 (formally FEM) compliance at the Faculty of Civil Engineering at the University of Technology, Sydney (UTS), Australia.**

**UTS have conducted over 1000 tests on Dexion's racking components. The thoroughness of Dexion's testing procedures, ensure Dexion components perform to their stated loads.**

**Further more, this provides peace-of-mind in quality components which have been put to the test before they reach the distribution centre floor.**

**Continual testing at our own facility, the Comino Research Centre, and at UTS, provides assurance in maximum safety, efficiency and price competitiveness.**







*High strength, high-grade steel.*

## Better steel and more of it.

**The most important thing to consider when assessing the merits of a racking upright, is upright capacity. The two factors that affect this are; the grade and quality of steel and how much steel is removed during the manufacturing process.**

**Dexion uprights are made from high-strength, high-grade steel. This steel helps Dexion maintain an efficient design while providing excellent load-bearing capacity.**

**Dexion's Speedlock slot pattern is expressly designed to remove as little steel from the upright as possible. It's this commitment to quality of steel and efficient design that's kept Dexion ahead of the market for over sixty-five years.**

Deeper side flange provides greater strength, rigidity and impact resistance.

Dexion slot transfers the load vertically and safely down the upright.

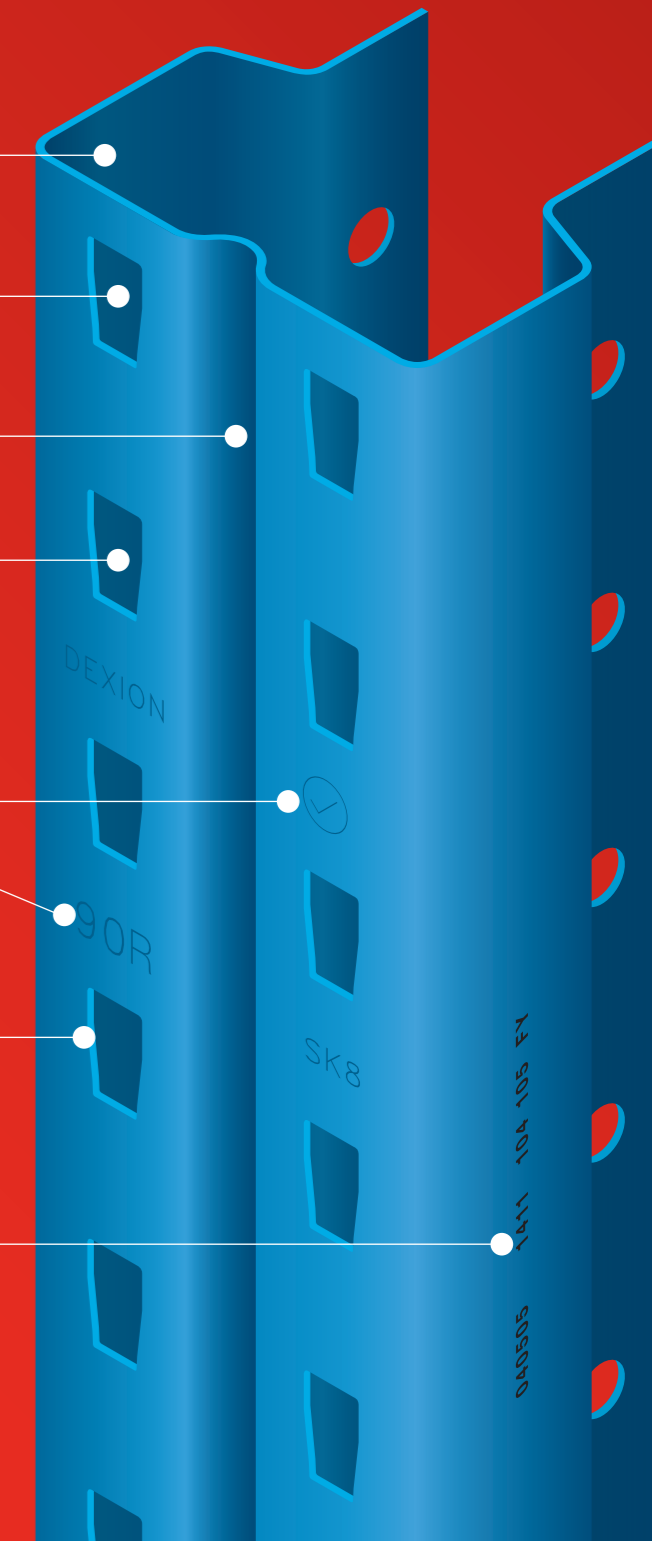
Centralised groove maximises load-carrying capacity.

Dexion punches less steel from its upright providing greater strength and load carrying capacity.

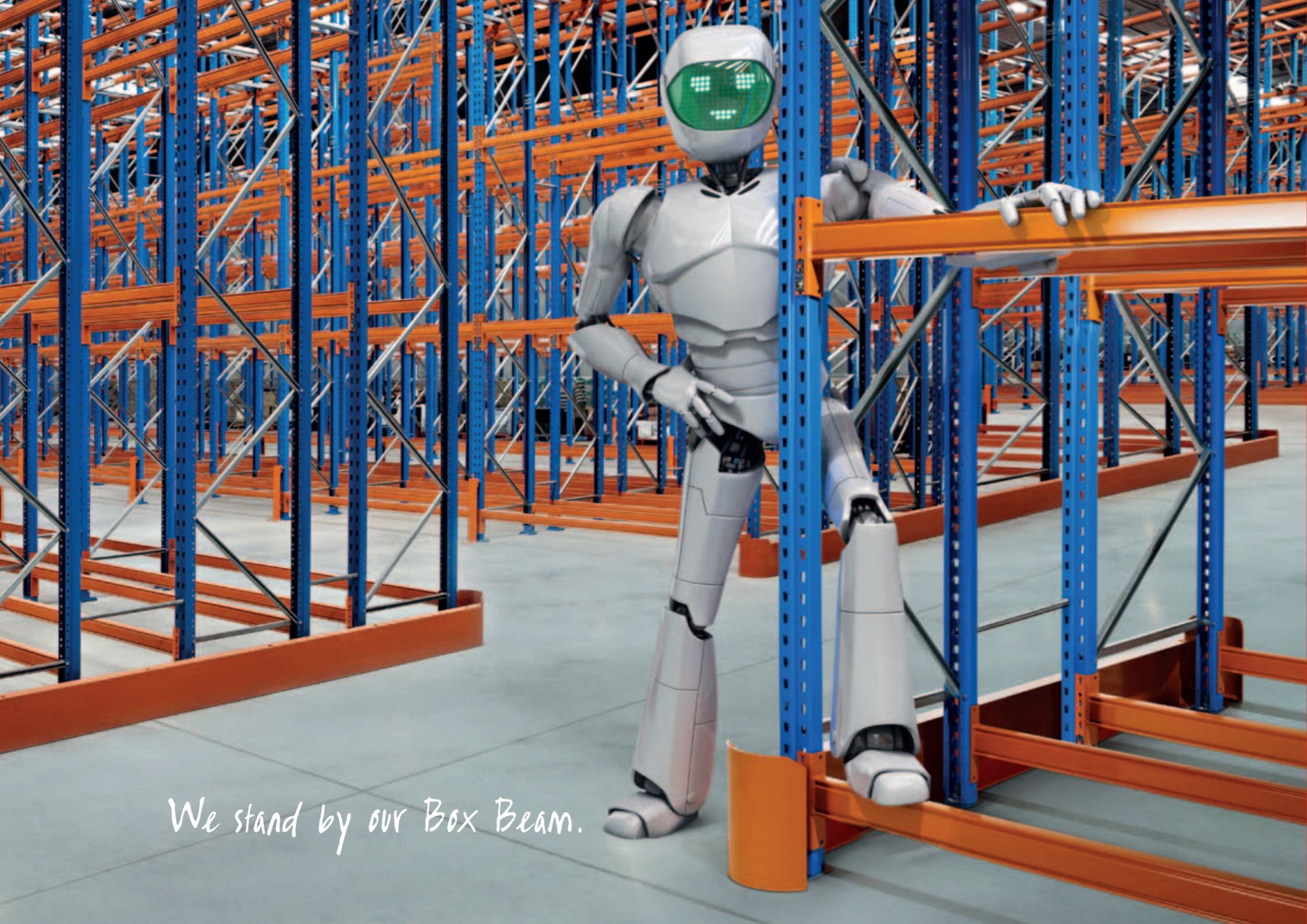
Each Speedlock upright is stamped with Dexion's trademark circle and tick plus upright type and grade, denoting genuine Dexion quality.

Connector slots take less than 10% of the load bearing section, carrying heavier loads with greater safety.

For manufacturing and product traceability purposes, each Speedlock upright is marked with a unique identifier.







To make it to the top in the box beam business, we developed a very thick skin.

**It's the top edge of your box beam that sustains the most punishment. With truck forks and laden pallets banging down day in, day out, it's here that your box beam needs to be strongest. Yet this is the point that some box beams are at their weakest. Speedlock Box Beams are formed using two 'C' sections interlocked over the length of the beam, forming a double skin at the top and bottom of the beam. It puts top grade steel where it's needed most. The return flange also gives the beam added load-bearing capacity and allows a lower profile, making greater use of your limited vertical space. Dexion not only has the largest range of box beams, but also boasts the greatest load carrying capacity on the market on a size-for-size basis.**

*We stand by our Box Beam.*

**Box Beam:** Dexion Speedlock Box Beams are constructed by joining two 'C' sections over the entire length of the beam, providing added strength, rigidity and safety.

Material is closely lapped at the top and bottom, removing air pockets and blocking exposure to the environment to extend product life.

'Hard tooling' provides additional strength to the beam section.

The beam's outside clinch is placed at the bottom edge, ensuring the fork tang won't get caught and cause potential uplift.

Added return flange gives the beam, and the racking structure as a whole, greater torsional strength.

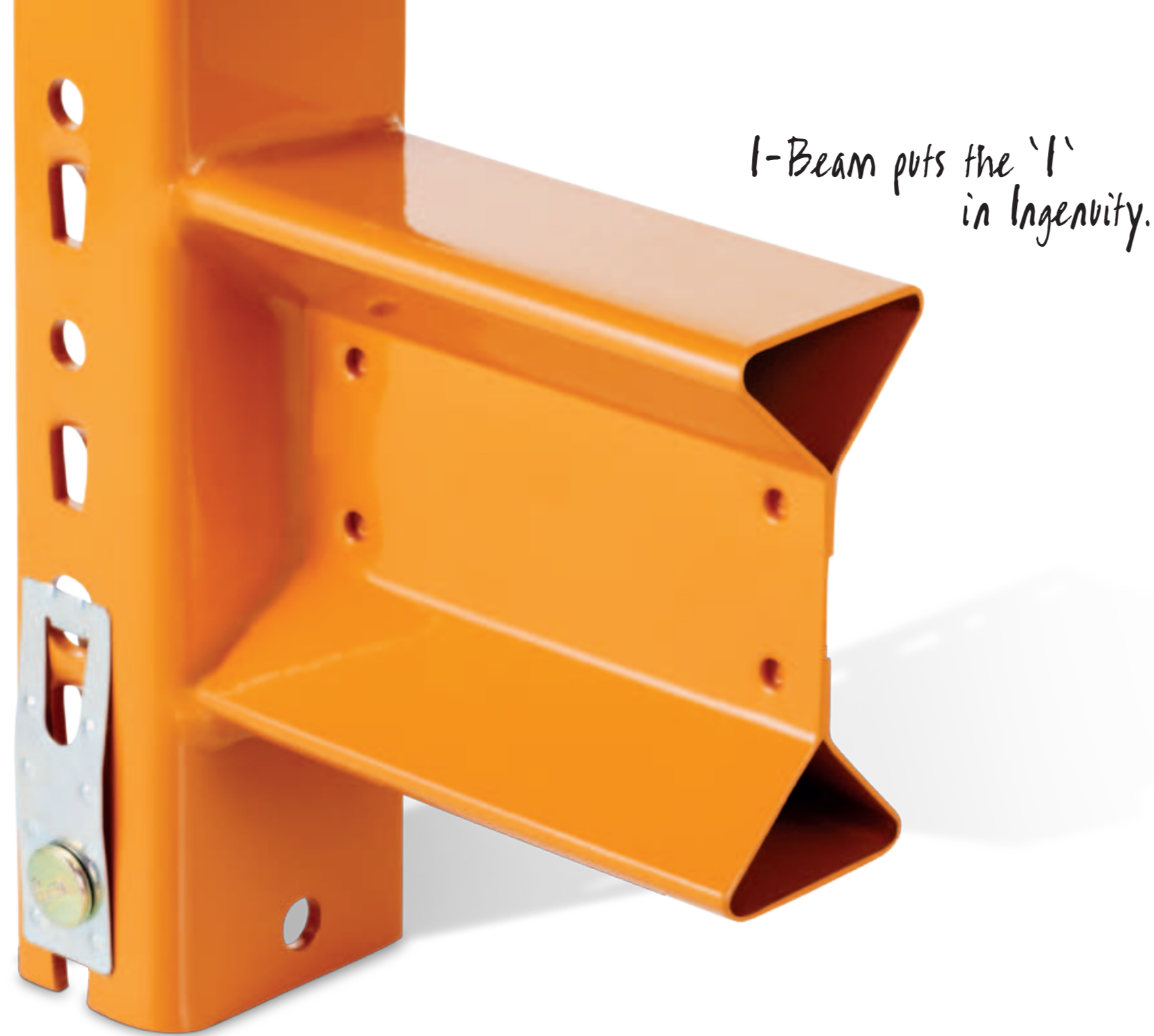
**Top impact resistance from bottom to top: Extra Heavy Duty Box Beam.** Extra Heavy Duty Beams are fitted to what's called the 'impact zone'; the bottom beam level where forklifts are most likely to cause damage. Dexion's market leading Standard Box Beams are designed and proven to resist impact by forklifts in this zone. Their performance equals all other heavy duty box beams on the market. However, in the area of specific concern, the impact zone, Dexion's Extra Heavy Duty Box Beam outperforms every other beam on the market. Our box beam range provides you with a superior beam throughout your entire installation, not only at the impact zone.

Double material thickness top and bottom (where it's needed most) allows a low profile section, and provides greater lateral stiffness from the front of the beam to the back.

**Impact resistant edges:** The most vulnerable part of a beam while being loaded is the front top edge. It's here that the Speedlock Box Beam not only has a clean edge, but double skin thickness and a return for added resistance.







*I-Beam puts the 'I' in Ingenuity.*

With I-Beam, you get smarter thinking outside the box.

**I-Beam's revolutionary design has enabled a significant reduction in weight to improve handling and construction without compromising on load capacity or resistance to damage. In fact, the I-Beam is structurally more efficient than conventional box beams of the same weight.**

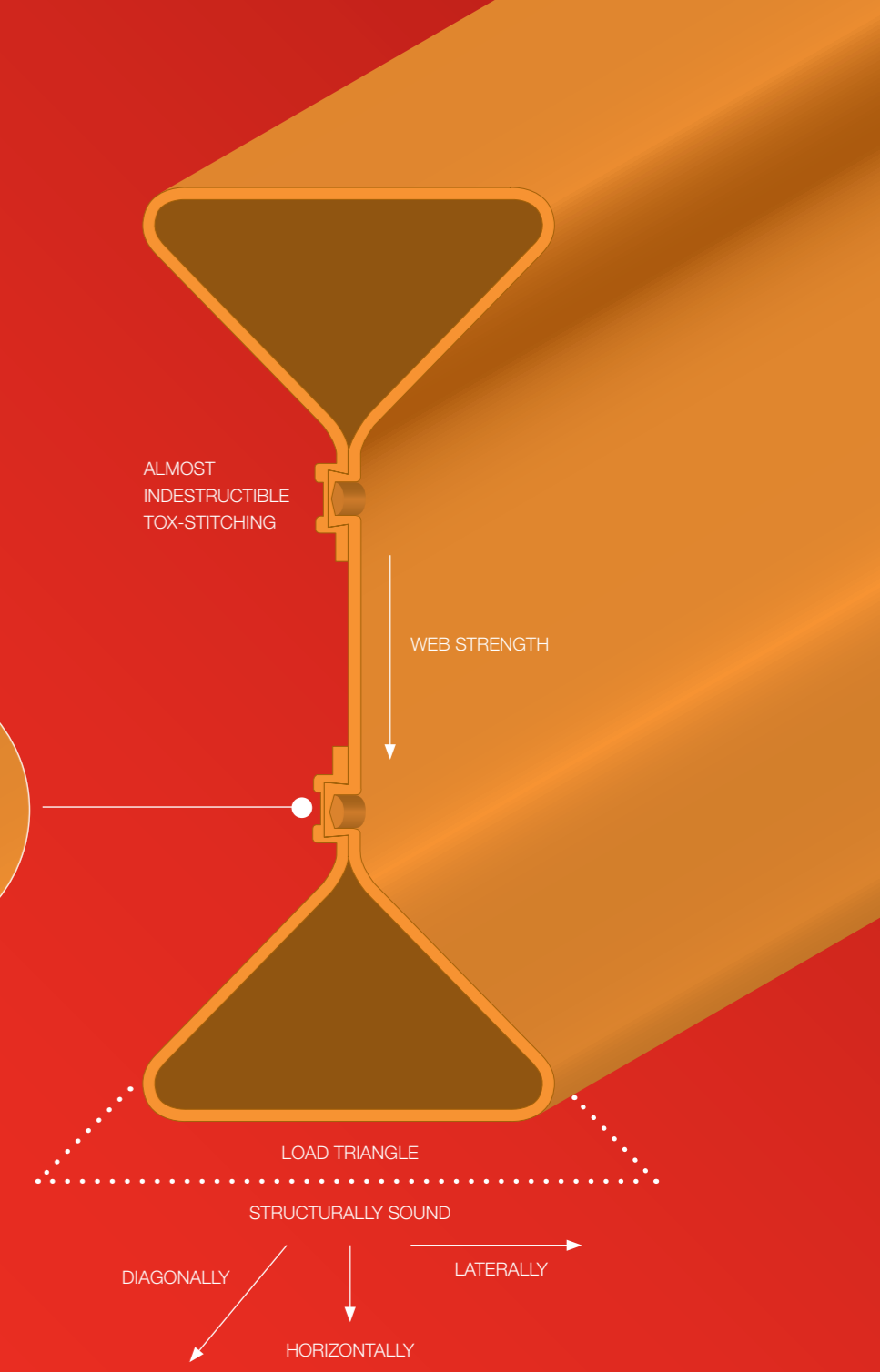
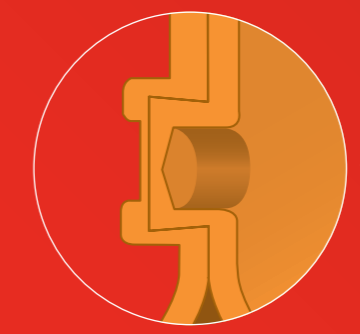
**On a size-for-size basis, I-Beam has a considerably greater load capacity. Weight is dispersed evenly over the beam, eliminating 'hot-spots' of stress, while the unique tox-stitching process strengthens the beam.**

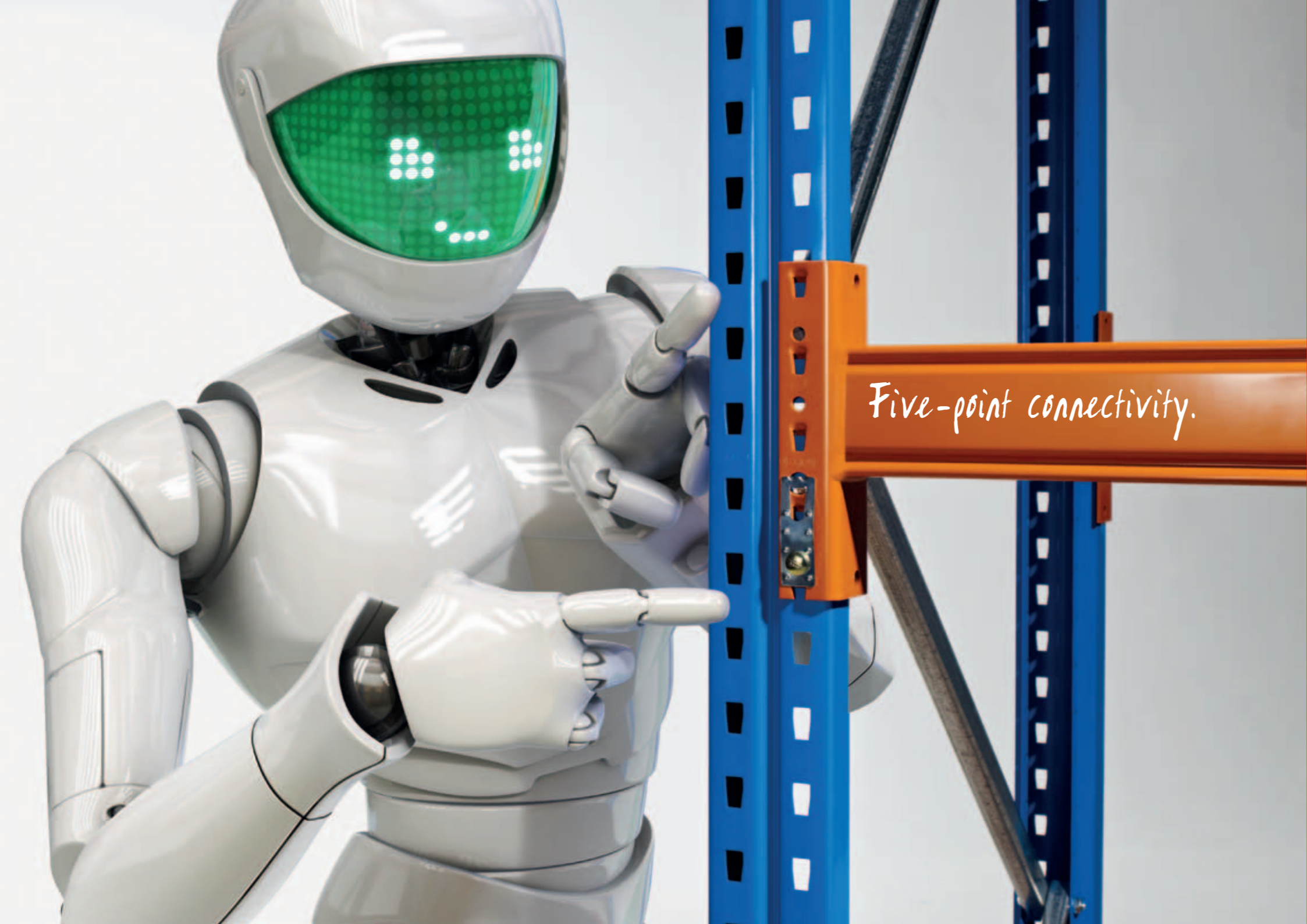
**Efficient use of steel makes the I-Beam lighter and easier to transport and install.**

**So you'll be working better, faster.**

**I-Beam:** The I-Beam's unique profile distributes weight evenly around the section, reducing areas of excessive stress and optimising load carrying capacity. I-Beam's patented tox-stitching process adds strength and rigidity. Unlike a tack-welded beam, tox-stitching will not part with lateral pressure.

**I-Beam's patented tox-stitching**





To keep their relationship strong, we give our uprights and connectors a bit of space.

*Five-point connectivity.*

**In Dexion's Speedlock system there's a special clearway between the connector and the side flange of the upright. The load imposed on the racking is transferred directly to the front face of the upright where it dissipates vertically and harmlessly.**

**Other connectors on the market rely on a wedge fit to achieve structural stability, leaving the upright vulnerable to potential damage by lateral load. At the very least, a wedge fit makes the adjustment of beams very difficult.**

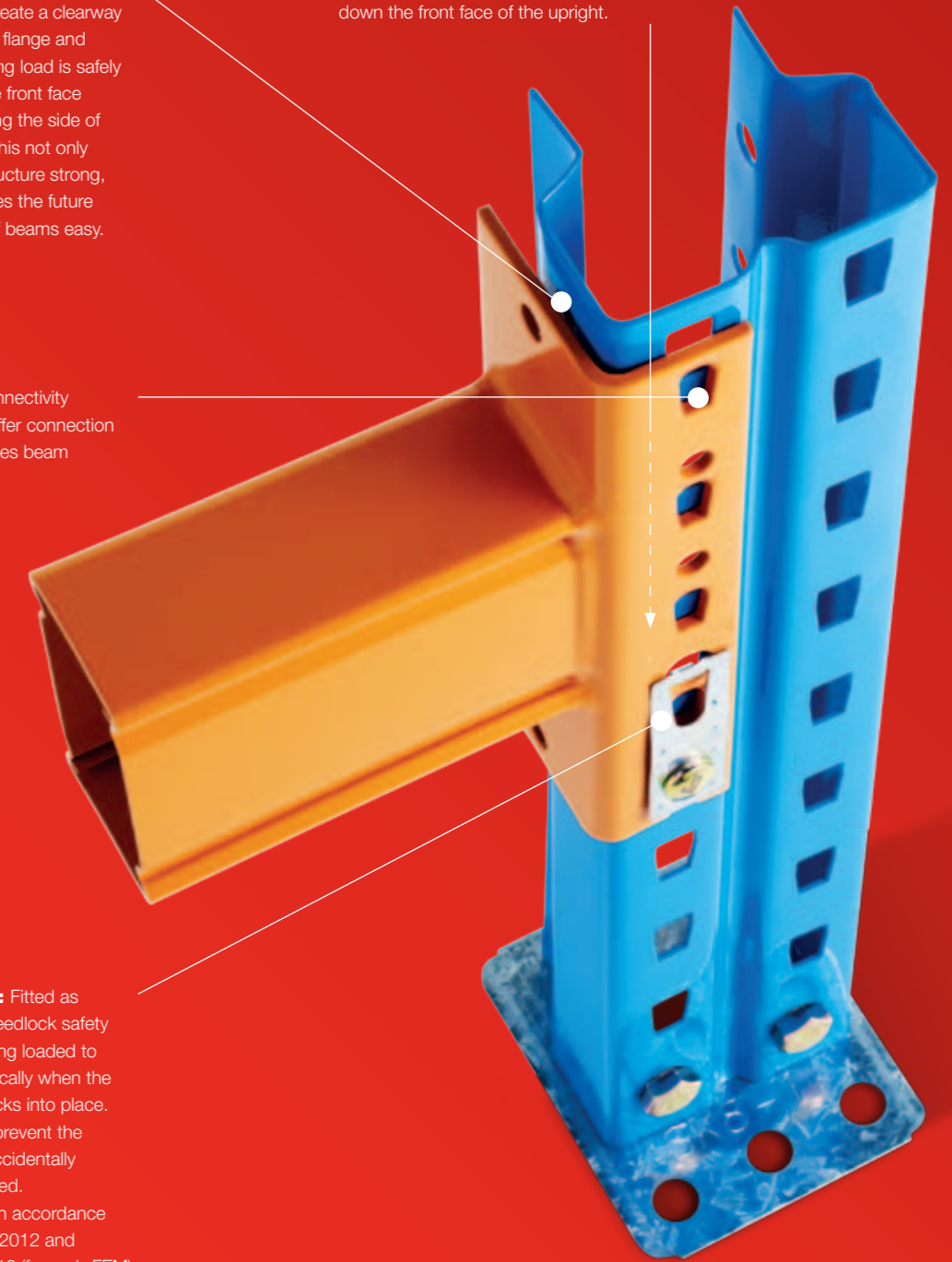
**Dexion's connector clearway protects your upright from damage due to its sideways force. It also makes it far easier to adjust your beams to accommodate changes to your product line or the configuration of your warehouse.**

**Speedlock connectors are made from high strength steel. Five-point connectivity provides a stiffer connection to the upright, which increases the beam's capacity.**

**Connectors:** Speedlock connectors create a clearway between side flange and beam, ensuring load is safely carried on the front face without loading the side of the upright. This not only keeps the structure strong, but also makes the future adjustment of beams easy.

Beam load is correctly dissipated vertically down the front face of the upright.

Five-point connectivity provides a stiffer connection which increases beam capacity.



**Safety lock:** Fitted as standard, Speedlock safety locks are spring loaded to lock automatically when the connector clicks into place. Safety locks prevent the beam from accidentally being dislodged. Uplift load is in accordance with AS4084:2012 and EN 15512:2012 (formerly FEM).





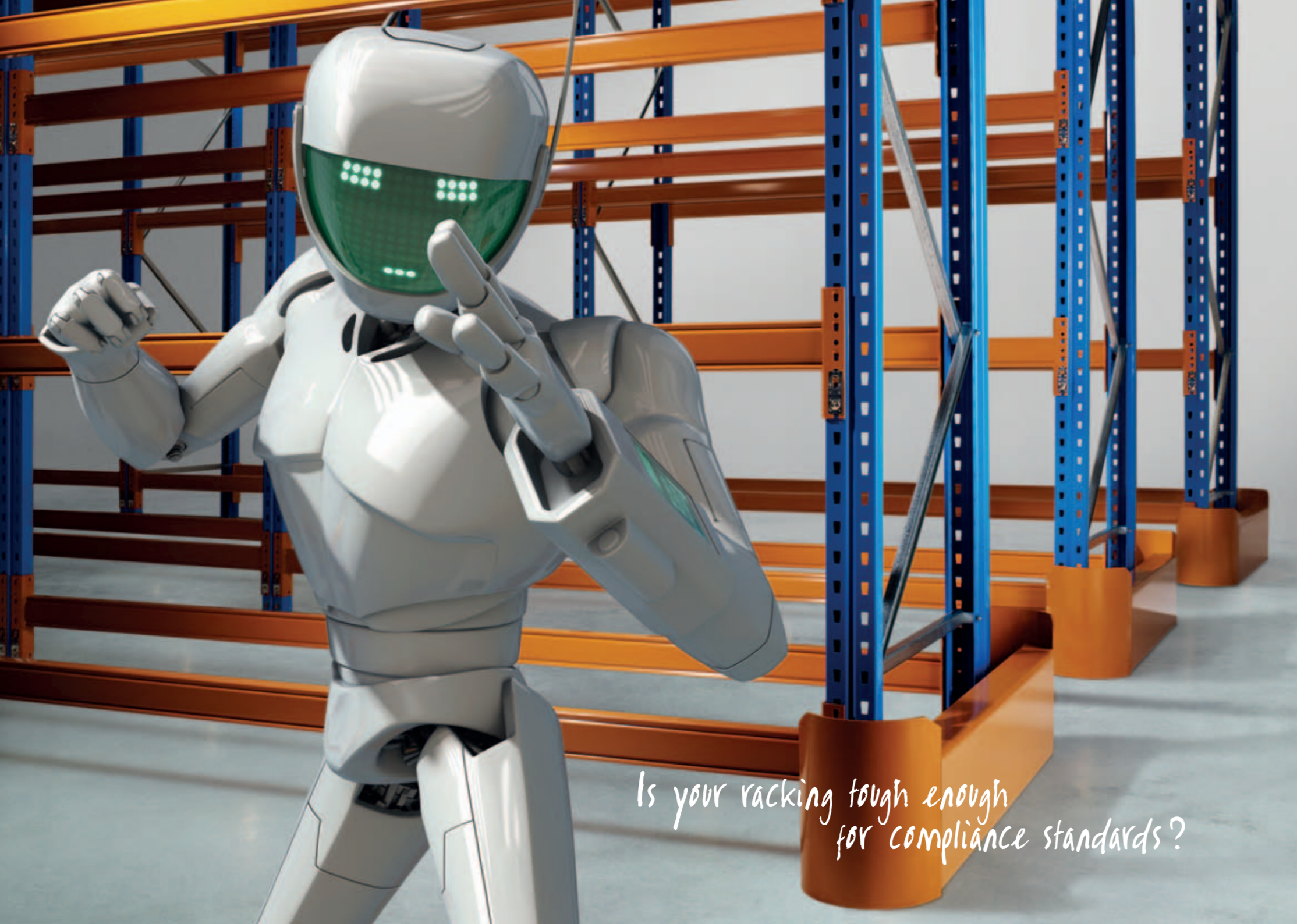
Ready... set...

# Speedlock<sup>®</sup> is ready to compete for your business.

**Dexion Speedlock is ready to take on the challenge of a global market, confident in its ability to provide the ultimate racking system. In Dexion you have a proven performer and with the extensive range of beam**

**options on offer, we're able to provide greater design versatility and class-leading load carrying capacity. This makes Dexion's ability to find you a cost-effective solution hard to beat. Ready. Set.**





*Is your racking tough enough  
for compliance standards?*

# Speedlock<sup>®</sup> isn't afraid to take on the imitators.

**Clones and copycats come and go, but Dexion has been leading design and performance in racking systems for over sixty-five years.**

**When you choose genuine Dexion Speedlock components, you're choosing a lifetime warranty that is backed by a comprehensive support**

**network across Australasia, Asia and the Middle East. You're also choosing designs that have been rigorously and independently tested to meet both Australian Standard AS4084:2012 and European Standard 15512:2012 (formerly FEM). You can't copy that.**





*Find the beam you need.*

Dexion® provides you with more component choices.



Standard Box Beam.



Extra Heavy Duty Box Beam.



I-Beam.



Channel Beam.



RHS Beam.



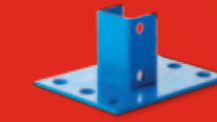
Step Beam.



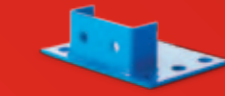
Open Beam.



Standard baseplate.



Stiffened baseplate.



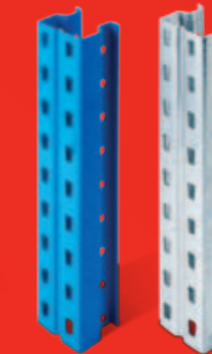
Narrow aisle baseplate.



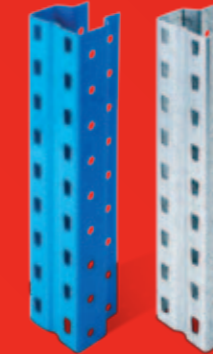
Heavy duty baseplate.



90R upright.



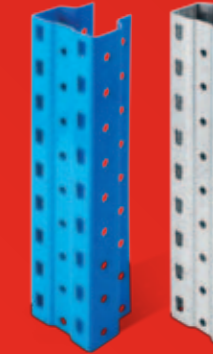
90E upright.



100R upright.



100E upright.



120M upright.



Splice to connect uprights.

Complete upright range available in painted or galvanised finish.