

Drafting chairs – the forgotten cousins to the AFRDI approved office chair

Whenever AFRDI goes on the warpath against people who flout its rules for product certification, quite often it's drafting chairs that are in the firing line.

Why should this be so? In the opinion of AFRDI's office swivel chair testing team leader, Eric Paul, it's because many AFRDI clients who have an office chair tested and certified under AS/NZS 4438 assume that the testing covers their chair's full range of models, including their drafting chairs.

The plain fact is that it doesn't. Only the chair models built from the components that are listed on a chair certificate are AFRDI approved.

If the AFRDI chair testing team has learnt anything as the institute ramps up Rated Load testing - with its more demanding performance requirements - it is that chair failure in testing can often rest on minor build details.

So it's no surprise that problems may arise when a drafting footring and a tall gas spring are fitted to the chair, without testing the specific features of the assembly.

As we see it, all the parts of a chair are important to the well-being and functioning of the whole: we can't say definitively whether adding a footring, changing the gas strut height, or adding arm rests, will negatively affect a chair's performance ...**unless we have specifically tested it.**

The lesson is straightforward. If you as a manufacturer or supplier want to claim AFRDI Blue Tick certification on a chair, plus the options, have the options tested. There is normally a cost benefit if this is done at the same time as the initial tests are carried out, and the resulting peace of mind is worth it.

That way, AFRDI won't be writing you a 'please explain' letter, and you will know for certain that your chair is OK for all the fittings you are claiming as AFRDI certified.

Testing: it costs a lot, but it's worth a lot more, says new AFRDI client

Queensland's Russell Crawford is one of AFRDI's newer clients, having moved into furnishing cafes just five years ago from an earlier career as a baker.

Russell is the director of RNI Imports, which imports a wide range of tables and chairs for cafes and restaurants. Importing from a wide range of suppliers in Europe and Asia, he found he had some early issues with quality that had the potential to threaten his new business.

Then he heard about AFRDI's testing programs, and decided to have just two items tested. The first two chairs were certified by AFRDI and, as Russell reports, that marked something of a transformation for the fledgling business.

"I find that people trust the AFRDI name, and if a product has the AFRDI Blue Tick, that's good enough for most of my customers."

Russell has also put in place some on-the-spot quality control measures with his suppliers, which has also brought immediate improvements.

"I was even able to follow up an AFRDI suggestion that the diameter of the steel tubing on a chair's legs be increased from 19mm to 22mm, producing a really strong chair." The chair has now been certified under AFRDI's Rated Load program at 135 kg.

"That's the sort of professional advice that makes being an AFRDI member so worthwhile," Russell adds. Working on that principle, he's now having a little more than half of his current product range tested. And there's another feather in his cap – he has recently landed a major contract with a national fast food supplier for fixed height chairs tested by AFRDI.

Federal member visits AFRDI

Government Whip and Federal Member for Bass (AFRDI's electorate) Andrew Nikolic, visited the Institute recently.

During an hour of discussion about AFRDI's role in the Australian furniture industry, Mr Nikolic spent a few minutes examining the AFRDI test buttocks – buttocks made from wood laminations, and used in cyclic load testing of chairs.

Explaining the function of the buttocks, and the surrounding test equipment, is AFRDI CEO Bob Panitzki. AFRDI is currently upgrading much of its testing equipment, and also installing new testing rigs.



Some thoughts on the responsible sourcing of goods

The following information has been supplied by Product Safety Australia, and is a timely reminder of the duties of manufacturers and suppliers.

Launching the ACCC's Compliance and Enforcement Policy at the Committee for Economic Development, ACCC chairman Rod Sims highlighted the issue of safe sourcing, and the importance of good practice when manufacturing, sourcing and managing quality assurance of consumer products.

Rod Sims says at issue is a current trend towards direct sourcing of less expensive products from overseas by retailers of Fast-Moving Consumer Goods (FMCG). These are defined as goods that sell quickly and for a relatively low cost, and include goods such as some electronic products. Importantly, the ACCC is finding that there is an increase in consumer injuries and a sharp increase in the number of FMCG recalls.

The ACCC says it is concerned about a number of retailers, including some major retailers, supplying unsafe goods. Often, says Rod Sims, the reason behind problems with FMCG products appears to be unsatisfactory processes that fail to ensure the safety of products being sold on the Australian market.

"If a supplier takes short cuts in their product design and purchasing procedures, the ACCC has various enforcement options, in addition to specific product safety provisions," Mr Sims said.

"Under Australian Consumer Law, suppliers are responsible for selling consumer goods that are safe and fit for purpose. This includes goods that are subject to a mandatory safety standard or ban, as well as all other consumer goods.

"In fact," he added, "many goods that cause injury are not subject to mandatory safety requirements."

To avoid breaking consumer protection laws as a supplier, Mr Sims urges suppliers to consider their quality assurance processes so that unsafe products are not sent to market.

Good practice should be followed to ensure that due care has been exercised, including requesting test reports from a manufacturer, or commissioning tests performed by a suitable accredited laboratory.

To head off problems at the start, Mr Sims suggests that a pre-shipment inspection be performed at the factory before goods are released for shipment, so that any issues raised through inspection are addressed prior to shipment.

"In addition," he says, "there are best practice measures that should be taken to ensure that goods purchased for supply are safe, compliant, and of acceptable quality.

The measures include:

- Development of documented quality assurance and control processes;
- Random stock audits in distribution centres or stores;
- Evidence of compliance with ISO 9000 or an equivalent;
- The training of staff in quality assurance and quality control, and a knowledge of mandatory safety standards along with a working knowledge of Australian Consumer Law; and
- The purchase of recall insurance, and engaging professional consultants in quality assurance and control.

Light at the end of the tunnel for furniture industry?

At a time when the furniture industry has become accustomed to stories about cutbacks and downturns, some positive news emerges from around the globe.

In Germany, the Verband der Deutschen Moebelindustrie (VDM) has reported that the local furniture industry ended the 2014 calendar year with turnover up by 1.5%. As a spokesman for VDM said, this was 'unexpected', following as it did a 3.7% downturn in 2013. This year, the good news is expected to continue, with growth in the range of one to two per cent.

Positive indicators include increasing disposable income, falling energy prices as well as delayed purchase of furniture in recent years. Increases in exports are expected to Great Britain, the Netherlands and parts of eastern Europe.

In the United States, BIFMA International reports that furniture should remain in steady growth this year. Drivers include a growth in service sector employment, a lift in non-residential construction and office buildings.

As for trends, one is said to be a swing back from the open plan office system, to create more visual and acoustic privacy. Lounge seating with wrap-around backs to meet these needs is being seen at trade shows, and there are lifts in sales of felts, fabrics and other sound absorbing materials.

In Australia, growth over the past five years has been very slow, with the annual rate of increase just 0.1%. Trading conditions are said to have been adversely affected by uncertainty of consumers about the stability of financial markets.

Growth this calendar year is anticipated however to reach 1.5%.

The United Kingdom is also experiencing some growth in the furniture market, with manufacturing turnover for 2013 quoted as reaching a little over 7 billion pounds, similar to the turnover in 2010, before the downturns of 2011 and 2012.

The importance of furniture manufacturing is underlined by the statistic that it accounts for 1.3% of the country's total manufacturing turnover but, highlighting the relatively labour-intensive nature of the business, the 83,000 people employed equates to 3.3% of all UK manufacturing personnel.

The sector continues to be dominated by micro to small size businesses, with only a little over 4% of companies operating at turnovers of more than five million pounds.

Of some concern is the continuing trend towards an increase in furniture imports: imports from the European Community alone totaled almost 2 billion pounds in 2013, but this figure was tipped to more than double to 4.9 billion pounds in the following twelve months (*these trading figures are not yet published*).

Balancing this to a smaller degree are exports – mainly to the Irish Republic and to the United States – with the value tipped to exceed one billion pounds.

Standards Update

The next meeting of the CS-088 Standards Committee Working Group dealing with the update of AS/NZS4442: Office Desks and AS/NZS 4443: 1997 Office panel systems – Workstations will be held this month.

The meeting will concentrate on finalising the ergonomic section of the draft.

Public comments closed on 27 March on the revision of AS/NZS 3813:1998 Plastic monobloc chairs. This month's meeting of CS-088 will also consider these comments with the aim of publishing a new standard later in the year.

AFRDI Board meets at the Institute

In February, the Institute hosted the Board for its meeting. Apart from the meeting, the Board saw at first-hand the improvements to testing and equipment introduced since their visit the previous year.

Spending on plant and equipment and associated labour during the period was significant, continuing the trend of recent years to invest heavily (relative to turnover) in keeping plant at the technical forefront. Improvements included the design and manufacture of a rated load test machine, the mechanical and control upgrade to testing rigs for mechanism testing, and control and mechanical upgrades to a mattress testing machine, as well as minor updates to four other test rigs.

Underlining the importance of product testing to prevent injury

It might sound like a broken record – we have, after all, said it many times – but product testing **before an item goes to market** can save a good deal of embarrassment, and it may also save somebody's skin, and the ever-present possibility of litigation.

From the United States Consumer Product Safety Commission comes a report on the recall of a wooden fabric-covered dining chair. For the record, the chair was distributed by NPD Furniture, and was manufactured in China.

The Product Safety Commission reports four incidents of a chair leg breaking, fortunately without causing injury. In all likelihood, the entire course of events could have been prevented with some basic pre-market testing.



Another take on bringing manufacturing back home

This article is by Thomas Roemer, a senior lecturer at the MIT Sloan School of Management and the executive director of the MIT Leaders for Global Operations program. It was originally published by Forbes.com

In the last decade, we've lost millions of manufacturing jobs to outsourcing. According to US News and World Report, there are now 5.1 million fewer American manufacturing jobs than in 2001. The lure of low wages, tax advantages, and other cost savings has made for a seemingly straightforward calculus, and manufacturer after manufacturer, supported by intricate spreadsheets, has abandoned ship, until offshoring has become the emerging mantra of the new millennium. U.S. companies that still manufactured locally have slowly become outliers.

Interestingly, this dynamic now seems to be changing, as we're beginning to see more manufacturing in the U.S. Total output from American manufacturing relative to gross domestic product is back to pre-recession levels, with more than half a million new jobs. According to the Reshoring Initiative, 15% of this job growth results from reshoring alone. There are many reasons for this shift back to the U.S.

More bang for the buck

The first has to do with cost. It used to be cheaper to manufacture outside the U.S.; the costs are now converging. In the manufacturing sector, the U.S. is still among the most productive economies in the world in terms of dollar output per worker. To be more specific, a worker in the U.S. is associated with 10 to 12 times the output of a Chinese worker. That's not a statement about intrinsic abilities; it merely reflects the superior infrastructure of the United States, with its higher investments in automation, information technology, transportation networks, education, and so on. And even though this relative advantage is slowly shrinking thanks to Chinese investment in such infrastructure, the wage gap between Chinese and U.S. workers is shrinking at a much faster rate. The net effect is that overall manufacturing in the U.S. is becoming more attractive again, leading to domestic growth and reshoring.

As productivity rises and automation increasingly replaces manual labor, the returning manufacturing jobs will require a higher degree of technological sophistication from the workforce, and this unfortunately may leave behind those who are unable to adapt. Moreover, while these jobs will be more rewarding and better paid, they will restore only a fraction of the number of jobs lost. Political rhetoric that proclaims a manufacturing renaissance a panacea for lagging job markets is thus misleading and is limited to imagining the future merely as a reflection of the past.

Immediate gratification

The second reason to manufacture in America involves lead times. Customers have come to expect short delivery windows. With services like Amazon Prime, consumers are accustomed to delivery within one or two days, if not the same day. Offshore manufacturers need to store disproportionately large amounts of inventory to accommodate these expectations. But keeping inventory is costly—it requires space, energy, and labor; it gets lost, stolen, spoiled, and damaged; and, in the case of technology or fashion, it may become obsolete within weeks. Right now, the U.S. stores about \$1.7 trillion in inventory, which means annual inventory carrying costs of between \$300 billion and \$500 billion—roughly the gross domestic products of Denmark and Norway, respectively. Manufacturers with onshore facilities can cut those costs dramatically. However, these indirect costs of offshoring are much harder to quantify than direct manufacturing costs, and they were frequently ignored in the initial rush to offshore.