furntech
Australasian Furnishing Research & Development Institute

FURNTECHNICAL BULLETIN

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Welcome to the first edition of Furntechnical. Our aim is to regularly bring to our readers a commentary from the Furntech AFRDI Staff on an issue or issues within or affecting our Industry.

It is not our intention to provide a glossy, extensive publication but more the opposite.

We would welcome feedback from our readers on your thoughts and suggested topics for future Bulletins.

Bob Panitzki
Institute Manager

The Standards Process –Technical Bulletin No. 1

This technical bulletin has been drafted to examine the processes involved in preparing a new standard or reviewing an existing standard, with particular reference to office chairs within the Australian commercial furniture industry. It is proposed that some of the issues raised will be discussed in greater detail in subsequent bulletins.

Standards are documents which define requirements for product performance, test methods, process or practices. Standards used in Australia come from a wide range of sources and have a range of significance. The primary source of standards is Standards Australia, but other sources include International (ISO), British (BS), American (ASTM and ANSI), European (EN), etc. as well as local industry Standards. Standards and Guidelines issued by State Governments are also recognised in particular situations or Industries.

According to Standards Australia, a Standard is:

> "A published document which sets out specifications and procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs the way it was intended to".

The significance of Standards is similarly complex. Some 'require' only voluntary compliance, having no compelling force unless called up within a contract of sale or tender (when they take on the force of contract law). Others which are called up in legislation or regulations are compulsory and compliance is legally enforceable.

Making Standards

When it is determined that a new Australian Standard is required, it is usual that it be prepared by a Committee representing all groups having an interest in the subject. A draft is prepared which is made available for public review and comment. Feedback is usually given and assessed, and after further possible review, a final draft is adopted – or not – by ballot of the Committee members. A similar process is followed when an existing standard is reviewed.

Review

The review stages in this process are most important. It is intended that the Standard, when adopted, will be owned by all parties having any 'interest' in it. 'Interest' is defined as a person or body that plays a role in..."the supply, assessment, application, consumption or use of the product or service to which the standard relates". Anybody with an interest in the subject area being addressed by a proposed new standard (or an existing standard under review) should make it their business to be aware of the output of the relevant standards committee (e.g. typically draft standards) and, if appropriate, to make their comments known. The alternative is to run the risk of being stuck with an inappropriate or half baked standard.

International Standards

The concept of 'standardisation of standards' suggests that the fewer standards there are for the same items the better; the existence of different standards for common items in different countries can and does lead to much confusion. For this reason, wherever possible, International Standards – published by the International Standards Organisation (ISO) – are preferred to local ones. Australia is signatory to the World Trade Agreement on Technical Barriers to Trade which aims to prohibit the use or promotion of local standards as barriers to international trade. By adopting ISO Standards wherever possible Australia is able to ensure that its obligations under this agreement are being met. However, it is not compulsory to uncritically adopt ISO standards. If good reason exists they can be tailored to meet local requirements.

On The Horizon

The current Australia/New Zealand Standard for height adjustable swivel chairs is AS/NZS 4438:1997. A draft ISO Standard for height adjustable swivel chairs has been in circulation since April 2003. It has attracted considerable interest for a number of reasons not the least of which is the fact that the existing Australian/New Zealand Standard is overdue for review. However, the scope of the ISO draft (in it's current form) is considerably narrower than that of AS/NZS 4438. As a result, thought needs to be given to how issues covered in the current Standard which are not addressed in the ISO draft will be handled within the context of an ISO adoption process.

Significant issues not covered by the ISO draft are:

- ergonomic requirements;
- the treatment of pre-qualified components; and
- flammability of upholstery materials.

On the other hand one aspect of the ISO draft which has attracted considerable positive attention is the fact that it appears to offer a means of dealing with the often vexatious question of 'safe working loads' (SWL's) for chairs. The standard has a table from which any combination of SWL (110 kg and up) and durability can be drawn and used for testing purposes. This is probably too flexible and may require the creation of 'chair groupings' eg 8/5 up to 110kg and/or 24/7 up to 150kg etc- to avoid certification chaos.

There are a number of issues surrounding component prequalification, viz.,

- should it be compulsory?
- if so, should there be some testing concession given to chairs with fully prequalified components?
- what prequalification standards should be used? (the current component standard AFRDI 109 effectively addresses components for use in office chairs only up to AS/NZS 4438 Level 6.

There are also issues in relation to height adjustable swivel chairs which are not currently addressed by *either* AS/NZS 4438 or the ISO draft Standard.

They are:

- the angle of the backrest is not defined and yet it would appear to be fundamental to the comfort and ergonomic efficacy of any chair. The concept of backrest angle is simple, but an unambiguous definition that permits effective and reproducible measurement has proved to be very elusive;
- acceptable backrest angle ranges need to be defined to ensure safer more comfortable chairs. Obviously this question cannot be addressed until there is agreement regarding the measurement of the angles involved;
- a related issue (which has also proved elusive) is the definition of backrest profiles. All critical dimensions defined for the backrests of chairs are measured from the uncompressed surface of the backrest. When a person sits in a chair the contour of the backrest changes depending on it's resilience profile, the shape of the person's back, etc. and this makes the definition of critical backrest parameters less than satisfactory e.g. the height of the lumbar support point, based on the uncompressed backrest surface.

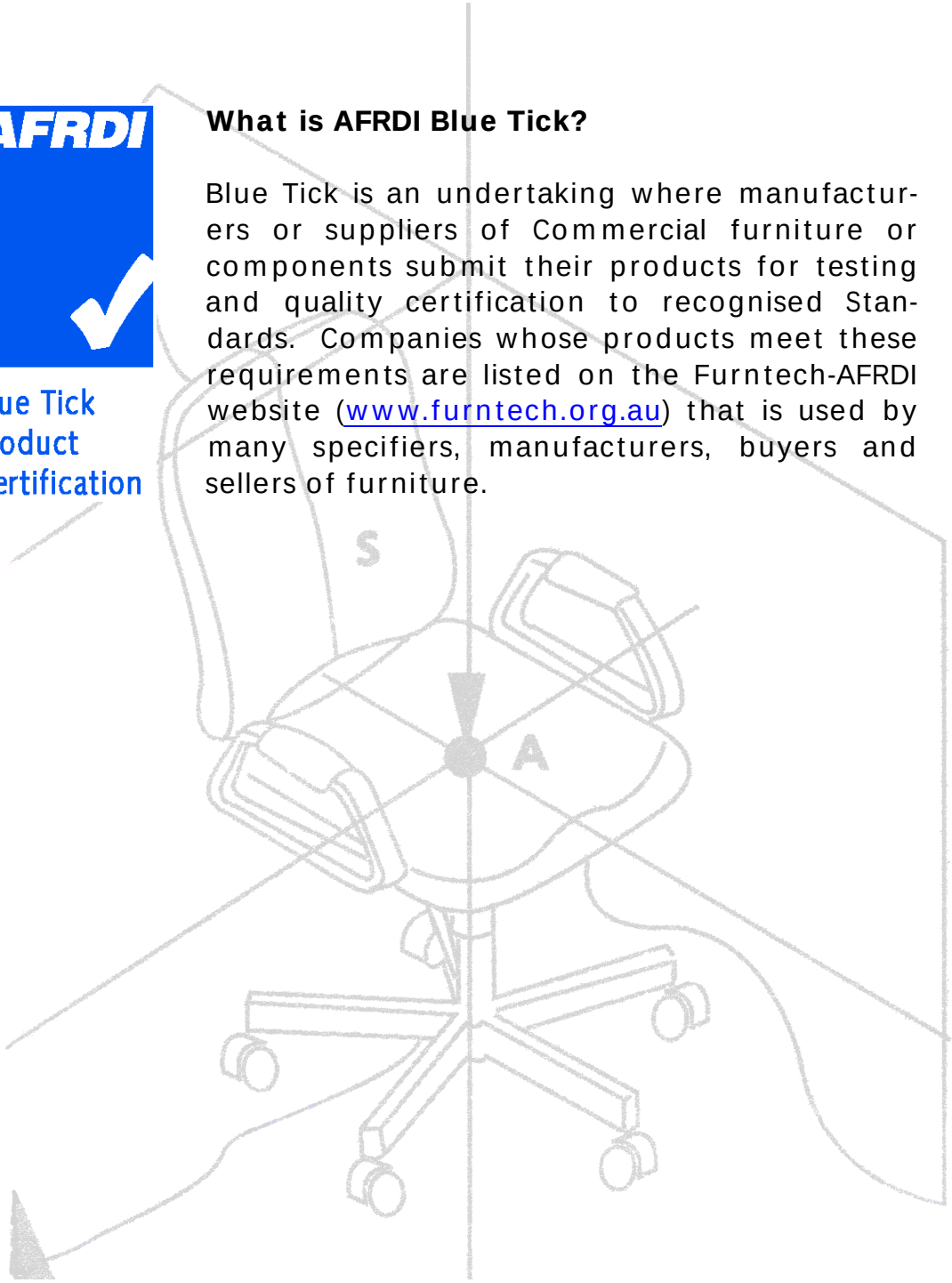
In this opening bulletin a number of topics have been introduced. Further bulletins will expand on these and other issues. Its not our intention to make definitive statements but rather to open discussion, outline our views and engender feedback.

Thanks for your attention and please feel free to contact us and discuss any of these issues.

Blue Tick
Product
Certification

What is AFRDI Blue Tick?

Blue Tick is an undertaking where manufacturers or suppliers of Commercial furniture or components submit their products for testing and quality certification to recognised Standards. Companies whose products meet these requirements are listed on the Furntech-AFRDI website (www.furntech.org.au) that is used by many specifiers, manufacturers, buyers and sellers of furniture.



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