



# ***Information Kit*** ***on Testing Height*** ***Adjustable Swivel Chairs*** ***to AFRDI 142*** ***(Rated Load)***

## **1. Introduction**

Most certified office swivel chairs in Australia and NZ are tested to the requirements of *AS/NZS 4438:1997-Height adjustable swivel chairs*. AS/NZS 4438 is regarded as appropriate for people up to about 110 kg. This standard - AFRDI 142 - is designed to cater for chairs intended to be certified as suitable for use by heavier people.

Please read this Infokit before you ring to enquire about testing (especially the **Question and Answer** section (section 8) where most matters relating to this program are explained).

## **2. Options**

AFRDI 142 is available in the four options listed below.

<b>Options</b>	<b>Chairs for</b>
<b>135 SS</b>	People up to and including 135 kg for single 8 hr shift operations <b>(i.e. approx. 40 hrs use per week)</b>
<b>135 MS</b>	People up to and including 135 kg for multiple shift operations <b>(i.e. significantly greater than 40 hrs use per week)</b>
<b>160 SS</b>	People up to and including 160 kg for single 8 hr shift operations. <b>(i.e. approx. 40 hrs use per week)</b>
<b>160 MS</b>	People up to and including 160 kg for multiple shift operations <b>(i.e. significantly greater than 40 hrs use per week)</b>
<b>185 SS</b>	People up to and including 185 kg for single 8 hr shift operations. <b>(i.e. approx. 40 hrs use per week)</b>
<b>185 MS</b>	People up to and including 185 kg for multiple shift operations <b>(i.e. significantly greater than 40 hrs use per week)</b>

Each of these options are suitable for commercial applications including all those as described in AS/NZS 4438 e.g. heavy industrial, office, general keyboard, executive, police stations, military installations, control rooms and similar. Rated Load AFRDI Blue Tick certification is available for each.

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Please note you will need to nominate your desired testing option. This decision should be based on the chair's construction and its intended use.

### 3. What's involved?

Evaluation includes:

initial inspection

examination and recording of components

labelling

ignitability tests

foam density

static load tests

fatigue tests

swivel test

stability tests

safety (i.e. in relation to pinch points, sharp points, and edges)

inspections.

For more information see our revised [AFRDI 142 A Guide for Specifiers and Product Designers](#)

### 4. What's not involved?

Component prequalification i.e. components such as castors, bases, gas springs and mechanisms are not required (at this time) to meet any prequalification standard.

Ergonomic assessment.

### 5. What does it mean?

When a chair is rated at 135kg, 160kg or 185 kg it means it is designed for **continuous use** by people up to those weight limits. It does not mean if someone well above the Rated Load occasionally sits on the chair they are likely to break it. When tested to AFRDI 142, chairs are subject to loads much higher than 135 kg, 160 kg, or 185 kg e.g. a **135 SS** chair is subject to seat loads ranging from 140 kg to 185 kg for 260,000 load cycles. In addition it is proof loaded to over 400 kg. Why then not rate it to a higher load? The answer is impact, literally. When a person sits down heavily they momentarily produce impact forces that exceed their weight. For this reason AFRDI 'tests high' and 'claims low'.

It should be noted, however, that even an MS Rated Load chair will not last forever. Concepts like 'Single-shift' and 'Multi-shift' involve notions of relative durability i.e. the latter is demonstrated to be more durable, relative to the

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former. It is not possible to predict absolute durability i.e. to make a statement like “this chair will give satisfactory service for 6 years 7 months 12 days and then fail”.

However, to give a firmer fix on the durability concepts embodied in this standard, even the SS options have been designed to meet or exceed the levels of durability demonstrated in either the current Australian Standard for Office Swivel Chairs (AS/NZS 4438 level 6 – the highest level), or the International Standard for Office Chairs, ISO 21015.

AFRDI does not itself guarantee any particular Rated Load chair against failure. What it does do is test chairs to very rigorous standards. Those chairs that pass, may then be certified (endorsed) by AFRDI if the company supplying them is prepared to enter into a certification agreement designed to ensure the maintenance of that quality (see section 12).

### 6. Costs

Please contact Furntech for a quotation.

**Prices are subject to 10% GST and membership discounts.**

Charges include:

- freight for three fully assembled identical chairs from your nearest AFRDI freight forwarding depot to Furntech-AFRDI (see section 10).
- Rated Load AFRDI Blue Tick Product Certification for three years.

Charges may vary depending on the complexity of the chair. POA for any additional testing done in combination with Rated Load testing.

#### 6.1. Adjustments

In the event that this product fails the assessment or the assessment is terminated at the owner's request, a credit towards future charges, available for a period of 3 years from the date of engagement, will be issued for the unused portion of the assessment fee. If tests have to be repeated further charges are also normally applicable.

#### 6.2. Discounts

Furntech-AFRDI members receive discounts on testing and research fees. Information on membership is available from the Institute or our website.

A quantity discount is also available when three or more distinctive chairs are forwarded for testing to any of the RL standards at one time (33% discount on the third and all subsequent chairs).

### 7. The Next Step

If you are interested in considering product testing, please:

- 1 Read our **Question and Answer** section (section 8). Most matters relating to the Rated Load certification programme are covered here – if you have any further questions please phone or e-mail (03 6326 6155 or [admin@furntech.org.au](mailto:admin@furntech.org.au).)
- 2 Contact Furntech-AFRDI for a quotation. Include details of the product for which you are seeking certification.

**IMPORTANT:** Please indicate to our staff if it is your intention to privately label the product in a company's name other than your own.

If you wish to proceed with testing on the basis of our quotation, please follow these steps:

- 3 Deliver the chairs to our Freight Forwarders or make alternative freight arrangements (see section 10).
- 4 Send your payment to Furntech-AFRDI (we accept cheque, EFT, Visa and MasterCard). Please phone 03 6326 6155 or e-mail [admin@furntech.org.au](mailto:admin@furntech.org.au) to request an invoice if this will help to facilitate payment (see section 9)

### 8. Questions and Answers

1. **Question.** What do I need to send?  
**Answer.** You have two options:

**A:** Send 3 structurally identical fully assembled (i.e. not knocked down; backs may be removed to reduce packing volume) and upholstered current production chair samples (they may have different fabrics only. If a chair incorporates mesh then all three samples must have the same type of mesh and have it in the same places on the chair) **or**,

**B:** Send 3 structurally identical current production kit chairs. The kits must:

- be complete i.e. when assembled form a complete chair.
- include instructions for assembly. These instructions must:
  - be in English
  - be unambiguous
  - include clear diagrams
  - include torque settings for all nuts, bolts and screws

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- include a comprehensive parts list (i.e. the components that should be present in the kit).

**NB.** Prototypes of either assembled or kit chairs can be tested and will receive a test report, but are not eligible for certification.

2. **Question.** What is certification?

**Answer.** See section 12.

3. **Question.** Is there anything else I need to send?

**Answer.** Yes. The *Testing Request Forms* need to be completed for each chair for which you are seeking certification. The forms will be included with your quotation.

4. **Question.** Will I get my chairs returned?

**Answer.** Your chairs will be mechanically tested, disassembled, cut up (to evaluate materials, wall thicknesses etc), attempted to be set alight, photographed, and then disposed of (or kept for our records). No fully tested chairs/parts will be returned except by special request (and then only if they are not required for our records). In the case of testing failures, where it may be desirable for the purpose of failure analysis to see a particular item, chairs or parts will be returned to our mainland freight forwarders. No additional freight charges will apply.

5. **Question.** What testing options are available?

**Answer.** See section 2.

6. **Question.** Can I get a chair certified that has alternative components e.g. different bases, backrests, gas springs etc?

**Answer.** Yes – as long as you are prepared to pay for significant additional testing for each component variation desired. The reason for this is that there are no separate component prequalification standards e.g. to add a component as seemingly trivial as a new castor would require significant further evaluation as the castor is subject to loading – and therefore may fail – at every stage of testing undertaken in the standard. A separate castor prequalification standard would obviate the need for further testing but such individual component standards have not yet been developed. In short, only the chair recipe/s appropriately tested will be the ones that can be certified.

7. **Question.** What if I want (or need) to change any of the components on my Rated Load certified chair?

**Answer.** You may not change the chair's components without voiding that chair's certification (unless we have tested the new components and proven their suitability).

8. **Question.** Are there any limits on what I can name the chair?

**Answer.** Most names are acceptable. Product names that claim, or

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strongly imply, attributes that fall outside the scope of the Rated Load program should be avoided unless they can be substantiated e.g. a chair with the name *The Eco-Friendly Chair* certified under this program would be problematic. *The Very Strong Chair* would be acceptable. For the former to be considered an acceptable name, its 'name claim' would need to be substantiated by at least one of the following: (a) recognized and acceptable green credentials (b) trademark registration. In either case we would note on the certificate that the 'claim' embodied in the product's name was not part of our endorsement.

Names of other companies' products that have been trademarked or copyrighted cannot be used.

Chairs must have a single name which should not include, or imply, a range e.g. The *ABC chair* is acceptable; the *ABC range* would not be (unless the optional components have been fully evaluated). The chair's name will be the one that appears on the final certificate. If the chair's name is an 'umbrella' term i.e. includes many sub-options, it will need to be specified in sufficient detail to clearly preclude all other non-tested sub-options (e.g. by inclusion of a model or part number on the certificate).

9. **Question.** Do my chair components need to be prequalified?  
**Answer.** No. Component prequalification is not required at this stage. However component identification is required. A list of chair components (including foam) - as outlined in this information kit (section 19) - does need to be filled out and sent with the chair or job initiation documentation.
10. **Question.** What about foam?  
**Answer.** Foam does not need to be prequalified but does need to meet or exceed the density and ignitability/flammability requirements of AS/NZS 4438 L6.
11. **Question.** Do I need to send separate foam samples for assessment?  
**Answer.** No. All testing will be undertaken on the chair specimens supplied.
12. **Question.** What if the chair is mesh upholstered? Do I need to send separate mesh samples for assessment?  
**Answer.** No. All testing will be undertaken on the chair specimens supplied.
13. **Question.** If successful will my certificates be published with a components list?  
**Answer.** No. Certificates will not include a components list. Certificates will specify that complying chairs have been tested for strength, durability, stability, ignitability/flammability and safety (pinch points, sharp edges etc). The appropriate user mass limit (rated load) and durability option will also be specified (SS or MS). Certificates will reference the test report on which the chair's compliance is based. The test report itself will contain a comprehensive list of components.

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14. **Question.** What about ergonomics?

**Answer.** Although a chair's ergonomics are clearly important, for Rated Load certification chairs will not be assessed against a set of dimensional or ergonomic requirements. The reason for this is that at this stage no ergonomic or dimensional criteria for chairs for larger people have been developed.

15. **Question.** What if I want my chair assessed to the requirements of AS/NZS 4438 as well as AFRDI 142?

**Answer.** It can be done. If a chair is successfully assessed against the requirements of any of the Rated Load testing options (135 SS, 160 MS etc) it can be granted the strength, durability, stability, safety and ignitability/flammability requirements of AS/NZS 4438 level 6. However to fully meet the requirements of AS/NZS 4438 it will also need to be assessed against both the dimensional and labelling requirements of this standard. Additional charges will apply.

16. **Question.** What if my chair is already certified to AS/NZS 4438 and I want to have it tested to AFRDI 142?

**Answer.** This is possible. However, if there are multiple component options on your 4438 certificate you would be best advised to select a **single set** of component options (i.e. one chair 'recipe') and give the chair a separate name – or model number – to that which appears on its AS/NZS 4438 certificate. Obviously it would be best to choose the components you thought were the strongest. Your 'new' chair could then be assessed to the requirements of any of the Rated Load testing options (135 SS, 160 MS etc). If successfully tested a new joint AFRDI 142/4438 compliance certificate would be issued in the new chair's name or model number only. Your original AS/NZS 4438 certificate and certification agreement would remain unchanged.

17. **Question.** How will a chair be certified if it meets the requirements of both Rated Load and AS/NZS 4438?

**Answer.** There will be a single joint AFRDI 142/4438 certificate. It will follow the format of the Rated Load certificates and will not list the chair's components.

18. **Question.** How much will it cost?

**Answer.** See Section 6.

19. **Question.** How long will testing take?

**Answer.** We estimate up to:  
135/160/185 SS; 8 weeks (once testing has begun, assuming no failures)  
135/160/185 MS; 16 weeks (once testing has begun, assuming no failures).

20. **Question.** What if I have test reports from another laboratory and use them to substantiate the claim that the chair has been tested in a way that I consider is equivalent or better than AFRDI 142? Will you accept other

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reports in lieu of 142?

**Answer.** No. Test reports from other laboratories will not be accepted in lieu of testing to AFRDI 142 (or even accepted in contribution to it). There is only one way to obtain AFRDI Rated Load certification and that is to undertake full Rated Load testing and evaluation.

21. **Question.** Can I start testing at a lower level and then continue to a higher one if all is going well?

**Answer.** Yes but only *within* the 135 kg, 160 kg, or 185 kg categories *and if* done at the time of testing e.g. if a chair passes at 135 SS it can then progress to 135 MS (but not to 160 SS or 160 MS). Similarly, if a chair passes at 160 SS it can progress to 160 MS. The same applies to 185 SS and 185 MS. Additional charges will apply.

22. **Question.** Can I start testing at a higher level and then be granted the lower one if the chair fails beyond a certain threshold?

**Answer.** Yes and no. Yes, if you are aiming for MS and do not make it, but have proceeded far enough to be granted SS e.g. if you are over 50% of the way to completing 135 MS and fail, you can be granted 135 SS. No, if you have—for example—started testing at 160 SS and fail prior to the completion of testing. In this case there is no lower level within the 160 kg category to fall back to. Additionally, given there is no certainty that either 135 SS or 135 MS would have been satisfactorily completed, certification at either of these 'lower' levels cannot be granted and needs to be proven by full retesting.

In short, if testing has proceeded far enough you can fall back from MS to SS. You cannot, however, fall back to a lower user mass level (i.e. from 185 to 160, or from 160 to 135, or even from 185 to 135) unless you satisfactorily retest at that level.

23. **Question.** If, at the end of my 3 years of Rated Load certification I want to continue how does the certification renewal process work?

**Answer.** To continue with Rated load certification a product must be fully retested.

24. **Question.** If a product must be fully retested will certification renewal cost as much as initial testing?

**Answer.** The charge for certification renewal will be 50% of the current full standard price for that testing point i.e. the full price of 135 SS or 160 MS etc. It will be subject to GST and any applicable membership discounts. To be eligible for this reduced charge the chair will need to be substantially the same as was originally tested and certified.

25. **Question.** Can a product be upgraded or downgraded at certification renewal time? (For example, upgraded from 135 SS to 160 SS, or downgraded from 160 MS to 135 SS etc.)

**Answer.** Yes – providing the chair meets the renewal requirements outlined in Question 24 above. The charge will be 50% of the current full



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standard price for that testing point and subject to GST and any applicable membership discounts.

26. **Question.** Is the standard available for sale?

**Answer.** No, but an abbreviated version of it in the form of a *Guide for Specifiers and Product Designers* is available in the *Publications* section of our website.

27. **Question.** I wish to get my chair tested and certified. Can I then have the certificate privately labelled? i.e. the certificate issued in a company name other than my own?

**Answer.** There are two options:

**A:** If you wish to have a certificate(s), for the product tested, in your own company name **and** in any other company's name(s), then please make this known to Furntech-AFRDI staff when you make initial contact.

**B:** If you do not wish to take out certification of the product in your own company's name, we can still produce a test report for you. However, it cannot be used to obtain certification in any other company's name. If you subsequently wish to take out certification in your own company's name, you may undertake the certification process if it is initiated within one year of the issue of the test report. If at this point you also wish to have the certificate issued in a company name other than your own please make this known to Furntech-AFRDI staff at the same time you make the request for your certificate.

28. **Question.** Can I promote or sell the individual components that have passed the testing on an AFRDI 142 chair as AFRDI 142 compliant components?

**Answer.** No. Only the AFRDI certified chair is AFRDI 142 compliant. The component(s) on that chair can only be said to 'have been tested on the AFRDI 142 compliant chair'.

## 9. Payment

Furntech-AFRDI policy is that **PAYMENT MUST BE MADE BEFORE TESTING COMMENCES**. Please phone 03 6326 6155 to request an invoice if this will help to facilitate payment. Facilities are available for payment by Visa and MasterCard.

## 10. Freight

Refer to the Institute's [Information Kit on Freight to Furntech-AFRDI](#). Distribution of this Kit in hardcopy form will include the freight-related information as a supplementary sheet.

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### 11. Timing

Freight normally takes between seven and fourteen days. The testing process for either SS option takes approximately 7 weeks; the MS options take approximately 12 weeks.

When the chair, Testing Request Forms, and payment, are all received, the item will be placed on the testing schedule and testing will commence shortly thereafter.

### 12. AFRDI Blue Tick Certification

AFRDI Blue Tick certification is granted for a three year period to suppliers whose products and organisations meet the required standard. At the end of this period the supplier may renew certification for another three years, but only after satisfactory retesting to prove continued compliance.

The concept is that for Furntech-AFRDI to endorse a product, the Institute needs to have an on-going contractual relationship with the supplier that ensures purchasers can rely on certificates of endorsement. Certification involves periodic audits and the investigation of complaints arising from the sale of endorsed products.

Under the AFRDI Blue Tick product certification program, suppliers must agree to:

- maintain quality of production to at least that of the samples tested;
- advise of changes in the product including changes in materials, components and means and place of manufacture **prior** to these changes taking place;
- not use (nor permit its agents to use) the logo to promote goods which are not covered by the agreement or to misrepresent the nature of Furntech-AFRDI's endorsement;
- keep and make available a register of complaints arising from the sale of goods covered by the agreement;
- agree to random checks of the quality of products covered by the agreement;
- maintain an adequate product liability insurance cover; and
- pay a certification fee – three years' fee is included in the testing charge.

In return, Furntech-AFRDI agrees to:

- permit the use of the Furntech-AFRDI Rated Load logo to promote goods covered by the agreement; and
- commend to specifiers and purchasers the goods covered by the agreement in lists on the Institute's website.

A copy of the agreement and any further information is also available on request.

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### 13. What You Get

Assuming that the product complies and that you sign an AFRDI Blue Tick product certification agreement, at the end of the process Furntech-AFRDI will:

- issue a Test Report and Rated Load product certificate;
- enter into a product certification agreement with the supplier of the chair, or add the chair to an existing agreement. Three years' certification fee is included in the testing charge; and
- add the product to the Furntech-AFRDI list of endorsed products under the Rated Load AFRDI Blue Tick Product Certification Scheme.

### 14. Information Required

The Testing Request Forms are to be completed for each chair to be tested (see sections 18).

### 15. Notes on Marking

The following information must be supplied on a chair for it to meet Rated Load certification requirements. (In the interest of avoiding possible certification delays, effort should be made to meet these requirements—as much as possible—**prior** to the submission of a chair for assessment.)

**NB** The information must be **permanently** affixed to the chair. To achieve this, markings must be of high quality. If stickers are used, they must be of very high quality and demonstrate very good adhesion. Light-weight paper stickers, stickers with turned up edges, poor or faint printing, will not be considered acceptable. Stickers of a slightly lower quality may be accepted if they are stapled to the chair or otherwise attached by secondary means.

Alternatively 'permanence' may be achieved by gluing, stapling or sewing a label onto the chair, or by including appropriate words in a die so that they appear clearly formed in a moulded component of the chair.

#### Required labelling information

- a) The certification holder's name i.e. the 'Name of Organization' as it appears on the Testing Request Forms; the certification holder's geographical address (an e-mail address is not sufficient); and the certification holder's phone number or e-mail address.*
- b) The week (or month) and year of manufacture.*
- c) AFRDI approved for users up to 135/160/185 kg – Single shift/Multi-shift operations. [delete as applicable]*
- d) Approved only when certification is current (see [www.furntech.org.au](http://www.furntech.org.au) for an up-to-date list of certified products) and when supplied in accordance with AFRDI Blue Tick agreement No. xxxx. [insert for x and y as appropriate]*

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- e) A statement attesting that the chair's foam (or mesh as applicable) has met the ignitability/flammability requirements of AS/NZS 4088.1 e.g. "Foams on this chair comply with the ignitability/flammability requirements of AS/NZS 4088.1."

### **16. Before Dispatch**

**PLEASE MARK THE PRODUCT NAME/NUMBER ON EACH CHAIR BEFORE DISPATCH.**

The name should match that used on the Company Information Sheet and Product Information Sheet provided with your quotation. To assist with chair identification, please attach a copy of the Company Information Sheet to each chair.

### **17. Confidentiality**

Testing conducted at Furntech-AFRDI is confidential. The Institute's procedures prohibit the disclosure of the fact that an item is being tested or the results of any such testing without the express permission (in writing) of the client concerned.

To assist us to preserve the confidentiality of other customers, we request three working days notice of an intended visit to the Institute's laboratory.