



Agenda for today

- 1. About Element and FIRA International
- 2. Testing and FIRA Gold Certification
- 3. Technical services and ergonomics
- 4. The Furniture Industry Research Association
- 5. Site tours





The recognized leader in Testing,
Inspection and Certification
Services to a diverse range of
industry sectors where failure in
service is not an option

Our purpose



Making tomorrow safer than today

We help our customers make certain that their products, materials, processes and services are safe, compliant and fit for purpose.

#MakingTomorrowSaferThanToday







Testing at FIRA International

Howard James, Testing and Technical Manager



Testing overview

- FIRA International holds UKAS accreditation to ISO/IEC 17025:2017 General Requirements for the competence of testing and calibration laboratories
- The schedule of accreditation covers of a comprehensive range of testing for furniture and related products
- We conduct testing which simulates real-life use and foreseeable misuse for all types of furniture and related products



Testing scope

- Flammability and physical performance tests
- Safety, strength and durability testing
- Performance tests
- Bespoke testing
- Development of new test methods
- Assessment of instructions and flat pack assembly



What our experts test to

bsi.

- Regulations
- British Standards (BS)
- European Standards (BS EN)
- International Standards (ISO)
- Other Standards (ANSI-BIFMA)
- Industry Standards (FRQG)
- No relevant standard? We can develop a test procedure for your product









Why test?

- Comply with regulations (e.g. Furniture & Furnishings (Fire) (Safety) Regulations, the Machinery Directive)
- Demonstrate a product is safe as part of a risk assessment in accordance with the General Product Safety Regulations
- Form part of a due diligence defence in the event of an incident
- Meet client specifications/tenders
- Reduce returns/complaints
- Demonstrate quality



Where do we test?

- FIRA International, Stevenage
- FIRA CMA, Hong Kong
- Element, Mississauga, Toronto, Canada
- Element, St Paul, Minnesota, USA







Materials testing

- Finish performance on worktops, doors and panels
- Adhesion of surfaces and edging
- Environmental testing
- Adhesive testing





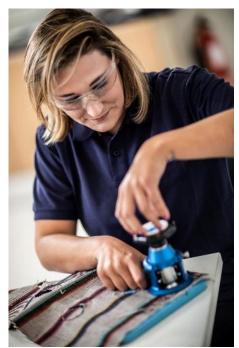
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Upholstery testing

- Flammability; domestic and contract
- Physical testing of fabrics; strength, abrasion and pilling, colourfastness
- Foam performance
- Cushion performance
- Mattress testing







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Structural testing

- Safety and durability of complete items of furniture:
 - seating
 - tables and desks
 - storage furniture
 - kitchens
 - beds
 - children's furniture



Further testing

Balustrades

- Childcare articles
 - cots
 - changing units
 - highchairs
 - safety gates



Equipment sales and inhouse testing support

- Furniture testing equipment:
 - Complete labs in Egypt, Singapore, Malaysia, Hong Kong, Philippines
- Manufacturer's in-house testing
- Other FIRA International approved labs include:
 - Howdens
 - FPRDI Testing Laboratories (Philippines)
 - FRIM (Malaysia)





Why test with FIRA International?

- We can trace our origins back over 70 years to 1949, so we're very well established
- Our experts have great in-depth knowledge, and sit on various standards committees
- UKAS Accreditation ensuring that tests are carried out to the highest standards
- Wide scope of testing
- 'Tested by FIRA' logo which sends a strong message to consumers and customers
- E-TIC Hub our testing portal





FIRA Gold Certification



Introduction to FIRA Gold

- Quality Certification mark recognised across the furniture industry
- Established 30+ years
- Demonstrates compliance with relevant legislation and levels of standards
- Exclusive to FIRA members
- Scope includes domestic and contract
- Applicable to entire final product, component or installation service





Achieving product certification

- Initial type testing to all applicable standards
- An initial inspection of manufacturing premises
- Review of customer complaints process
- A selected retesting programme
- Annual factory audit





Holders include





















Achieving installation certification

- Assessment of Installation Manual
- Encompasses legislation, good working practices and company policies
- Pre-audit visit
- Annual audit of each installation manager





Holders include











paula rosa | manhattan





Why consider FIRA Gold

- Stand out from competitors
- Provides customer satisfaction and reassurance
- Grow company reputation and brand
- Enjoy new marketing and promotional opportunities
- Be specified for more projects and tenders
- Recognise employees











Technical Services team

- Dedicated team of experts that provide knowledge-based solutions
- Guidance on changing legislative landscape
- Training in key areas
- Auditing and certification for a range of industry schemes

Key areas

- Product and process improvement
 - Company audits / due diligence assessments
 - Gap analysis
 - Product assessments
- Commercial services
 - Risk assessments
 - Failure analysis
 - Technical expertise
 - Training
 - FIRA Expert



Process improvement – company audits

- FIRA International Gold Certification
- Furniture Industry Sustainability Programme (FISP)
- Compliance Scheme for Fire Performance of Upholstered Furniture
- Manufacturer's Guild Mark (MGM)
- Pre-certification audits
- National Bed Federation (NBF)

FIRA Expert – virtual consultation

- Tailored advice for customer on industry issues
- Typical topics include
- Environment and sustainability
- General Product Safety Regulations
- Flammability
- REACH



Sustainability training

- Resource Efficiency, Material Transparency
- Circular Economy
- Packaging & Packaging Waste
- Certification
- New for 2022 Carbon Measurement & Towards Carbon Zero

Flammability training

- Flammability Requirements for Beds & Mattresses, across the Domestic & Commercial Sectors
- Understanding Flammability Requirements for the Contract
 Office Furniture Sector
- Understanding the Domestic Furniture Regulations & Working to Compliance



REACH training

- Introduction to REACH
- Annex XVII Chemical Restrictions
- Annex XIV Substances of Very High Concern
- Introduction to the change in Regulations post Brexit.
- Product Testing For REACH
- Worldwide Chemical Legislation
- Biocidal Products Regulation
- Chemicals and CSR
- Flame Retardant Chemicals





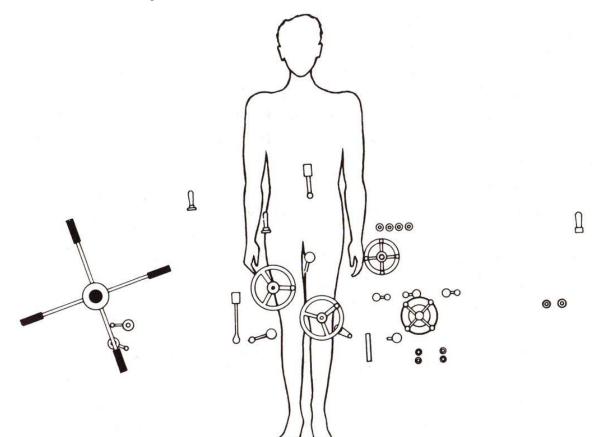
Ergonomics



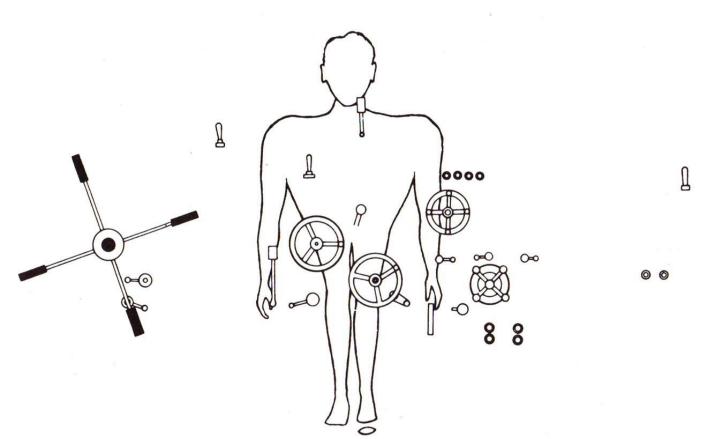
What is ergonomics?

- A multi-disciplinary approach to achieve a good fit between people and the:
 - Equipment they use
 - Work they do
 - Environment in which they operate

An example



An example



Ergonomics encompasses all places



Schools



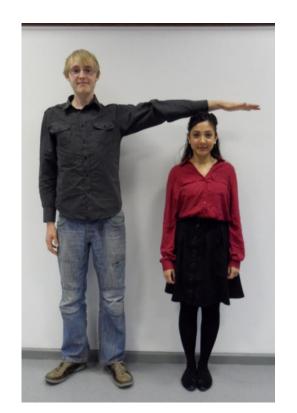
Offices



Factories

Size matters?





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Activities of ergonomics at FIRA International

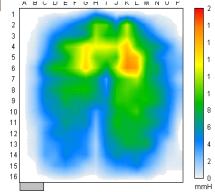


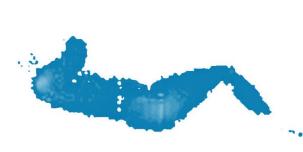












Workplace design and evaluation





Compliance with regulations

- Compliance with Health & Safety Regulations
 - Display Screen Equipment
 - Manual Handling
- Ergonomics risk assessments and solutions



Risk assessments



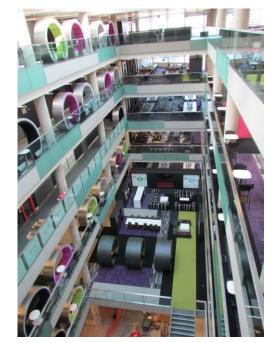






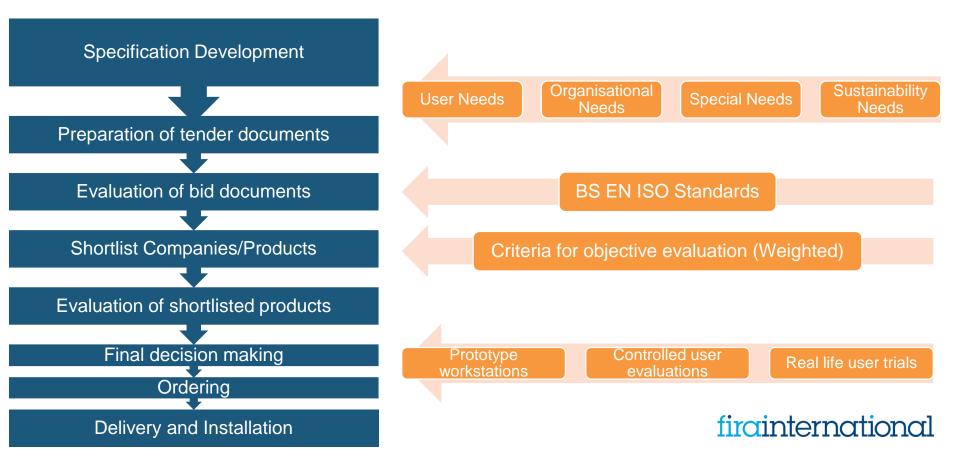
Furniture specification development and assessment

- Working with facilities managers and procurement
- Development of technical /ergonomics furniture specification and evaluation of bids
- Furniture selection / user trials



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Furniture selection process



Testing and standards

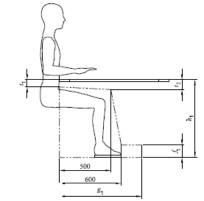
- Test to existing standards
 - BS EN 1335 1
 - BS EN 527 1
 - BS EN ISO 9241 5
 - BS EN 1023 1
 - BS EN 1729 -1
 - NEN, DIN, BIFMA standards etc.
- Develop new tests as required
 - For chair headrests, coat hangers (on chairs)
 - Monitor arms, laptop stands, document holders

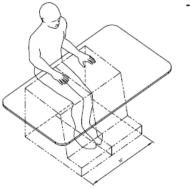


Ergonomics testing

 Measured to ensure that they will dimensionally fit the intended population

- Standards:
 - BS EN 1335-1
 - BS EN 527-1
 - BS EN ISO 9241
 - BS ISO 24496







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Product evaluations

- Ergonomics evaluations of products:
 - Appraisals
 - Fitness for purpose
 - Risk analysis assessment
 - Ergonomics Excellence Award



User trials for any product assessment



Mobility scooters



Catering for the aging population



Rise / recliner

Risk assessment / product liability / expert witness





'Ergonomic' products

As more and more products become 'ergonomic', there is now a need to differentiate between products claiming to be ergonomic

Even though all such products comply with appropriate ergonomics standards



FIRA Ergonomics Excellence Award

Launched in order to identify and differentiate those products which excel in ergonomics from those which only meet the minimum requirements of ergonomic standards



FIRA Ergonomics Excellence Award holders



Aeron Herman Miller



Quick Stand Lite Humanscale



Freedom Humanscale



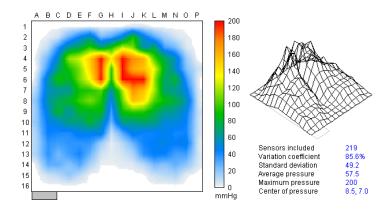
Erich Keller F-Com Trading Desk

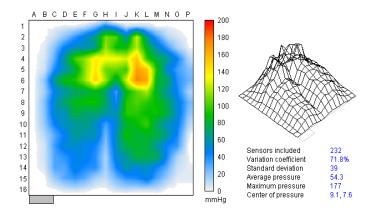


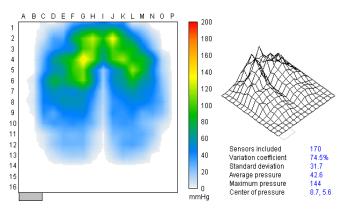
Ergonomic Cafe
GO MOBILE
Laptop Stand
Range

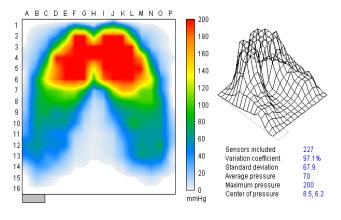


Pressure mapping for seating





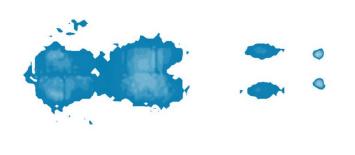




Pressure mapping for beds









Research at FIRA Ergonomics

- Research
 - 2001: Survey of School children in England
 - Design Guides
 - Bariatric seating and beds
 - Kitchen layout design guide
 - Pressure mapping
- Expert witness service



Standards activities

- Ergonomics
- Educational furniture
- Office furniture
- Domestic/contract furniture
- Kitchen furniture
- Beds/Bunk beds/mattresses





Meet the team

Levent Çaglar Claire Clark Hellen Davies Robin Ghoshal





The Furniture Industry Research Association



The Furniture Industry Research Association

- FIRA International are the service provider to the Furniture Industry Research Association
- We are two separate entities
- History that can be traced back to 1949
- Run by the industry for the industry
- Work steered by a Council that meets quarterly
- The Research Association are part of the British Furniture Confederation (BFC) giving members opportunities to feed into Government



The Research Association's role

- Supporting the entire furniture supply chain, across all sectors
- Hundreds of members benefit from access to knowledge, helping to keep them informed and providing guidance on compliance
- Publishing guides on key topics which affect the sector
- Representation on standards committees
- All knowledge available via a login to fira.co.uk



Membership

- Membership is open to all companies within, or with an interest in the furniture market
- Types of membership
 - Full membership: for manufacturers, retailers and major suppliers
 - International membership: for those overseas
 - Associate membership: for research institutes, universities etc.
- Additional membership benefits include discounts on testing and training, and full members receive 'voucher credits' which can be redeemed against services



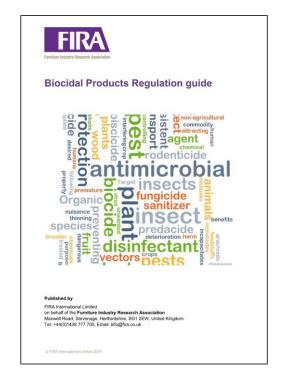
Work on standards committees

- Important role of the Research Association is representing members on various standards committees
- This ensure members have a voice when new standards are in planning or amendments to standards are in discussion
- Quarterly Standards Update released in March, June, September and December to enable members understand key developments
- Research Association are also involved in the committee looking at possible changes to FFFSR



Recent projects

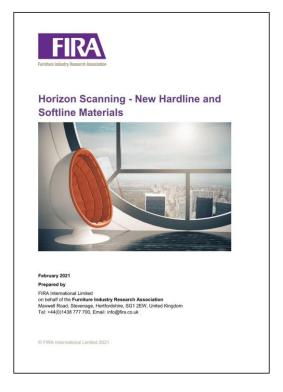








Recent projects







Recent projects











Thank you

