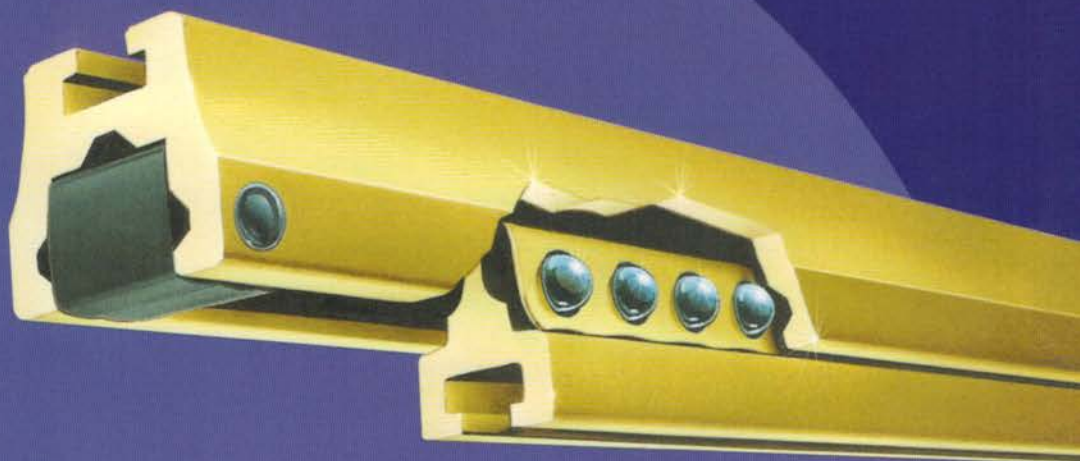


Marshall's

FITZROY®

Ball Bearing Sliding Track System

*Sliding smoothly around Australia
and beyond.*



COMPANY HISTORY

Charles Marshall started his engineering business in a small factory in Fitzroy, Victoria in 1880. Those early years saw him manufacturing and fabricating a variety of products.

100 years on, the company has grown, prospered and still remains under the guiding hand of the Marshall family.

In 1932 an innovation was introduced to Australian architects and builders - the 'FITZROY' Ball Bearing Sliding Door Track System.

This became and still is the flagship product of the company although many other products are manufactured to a strict engineering philosophy of quality and design.

Other products manufactured include collapsible grille gates in steel or aluminium, architectural lighting, electronic audio metalware, sophisticated vending machines and all manner of sheetmetal fabrication.

Reliable Engineering for over 100 years.

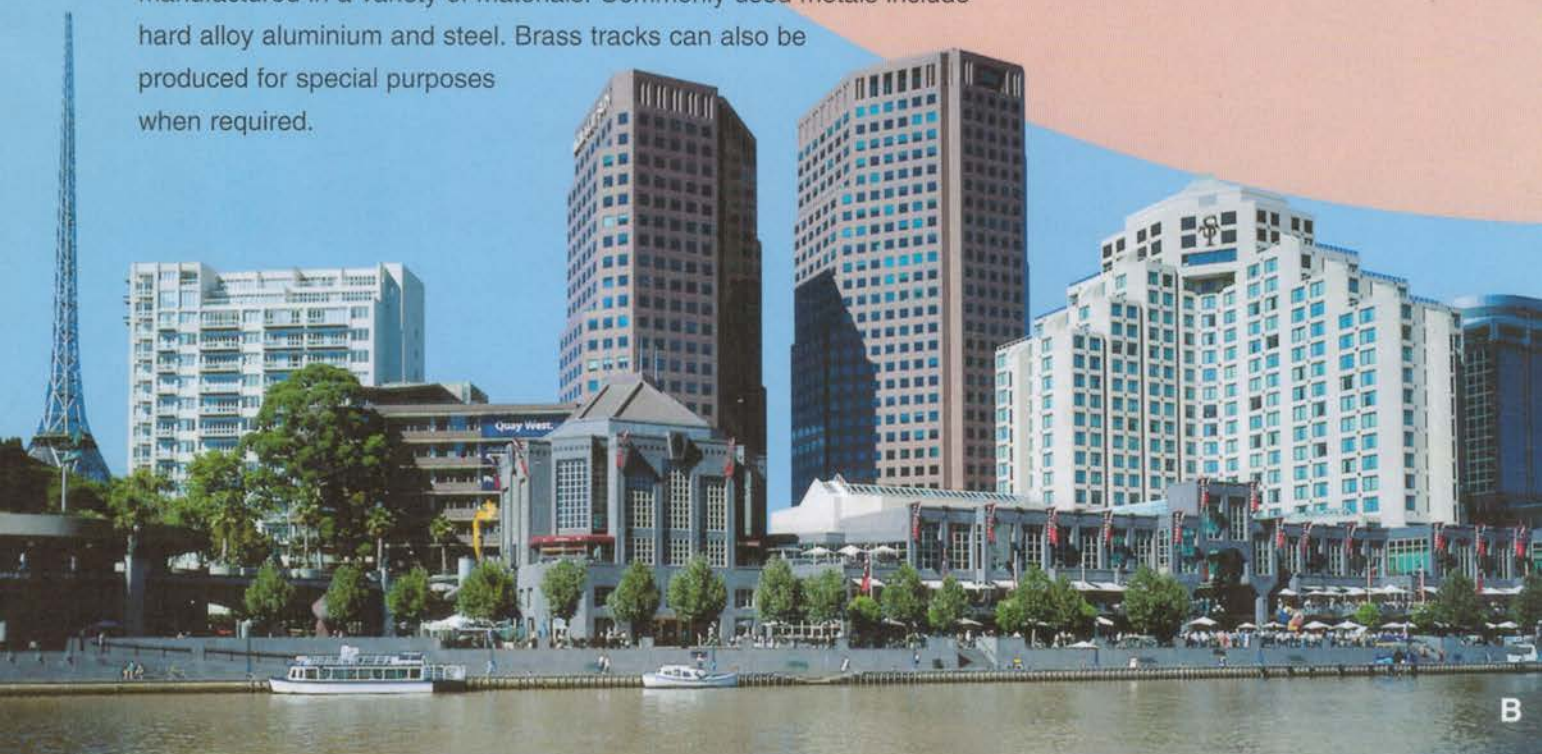
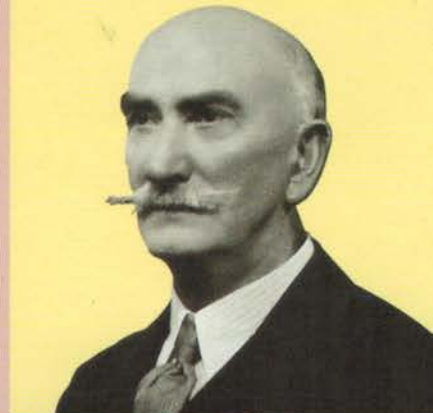
This is how 'FITZROY' works: Ball bearings are evenly spaced in a captive ball cage, these balls roll within fine tolerance grooves within the track, providing easy, smooth-flowing movement.

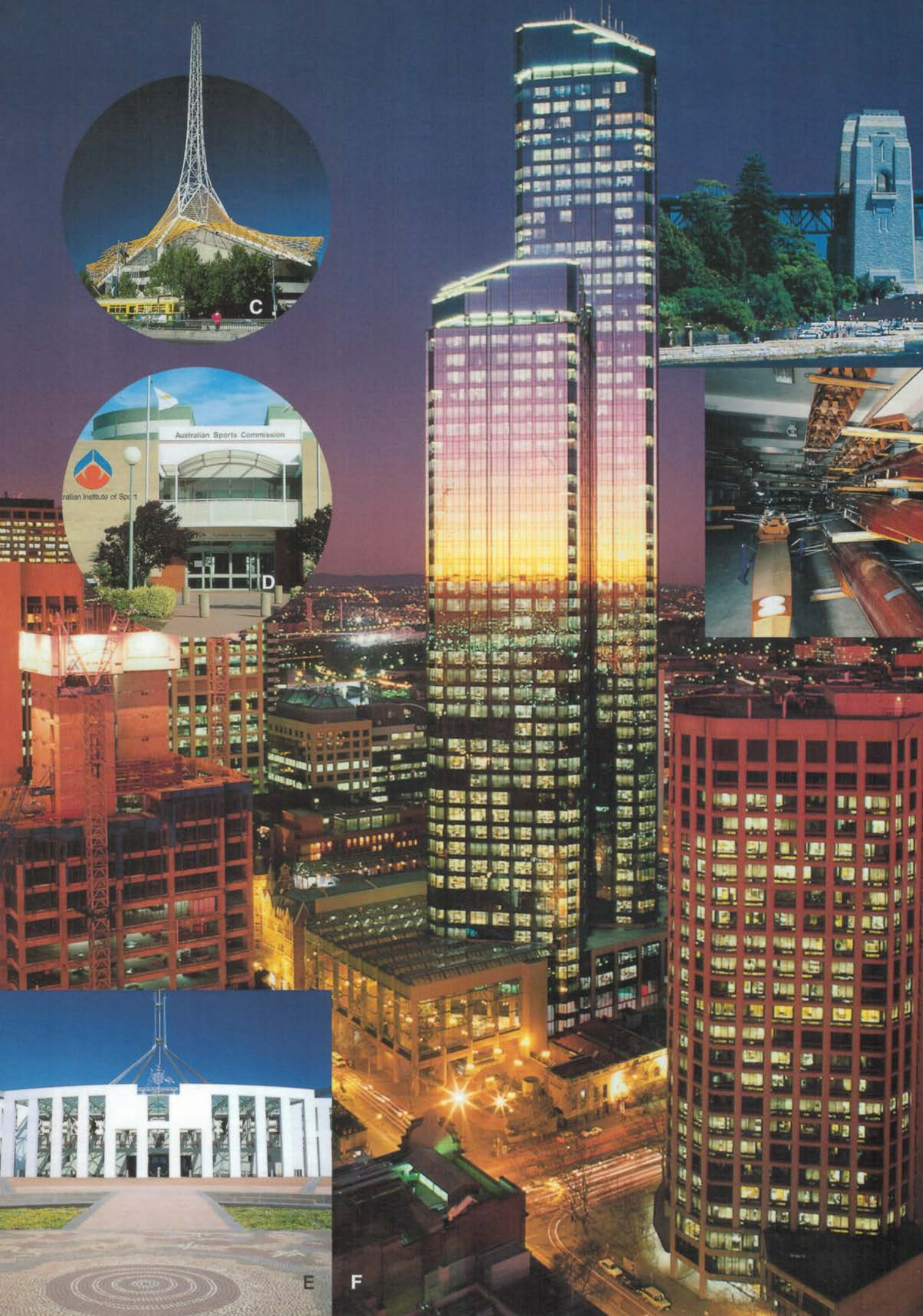
The Fitzroy Track System is available for use in light-weight applications such as kitchen drawers right up to giant 1 tonne door installations and beyond. The many ball bearings within the track are designed to ensure the door weight is evenly distributed and balanced.

This principle greatly reduces the operating pressure required to start the door sliding and keep it rolling.

Load distribution reduces the track wear-factor to almost nil, in fact over the past 50 years the company is yet to discover a track that has worn out if reasonably maintained.

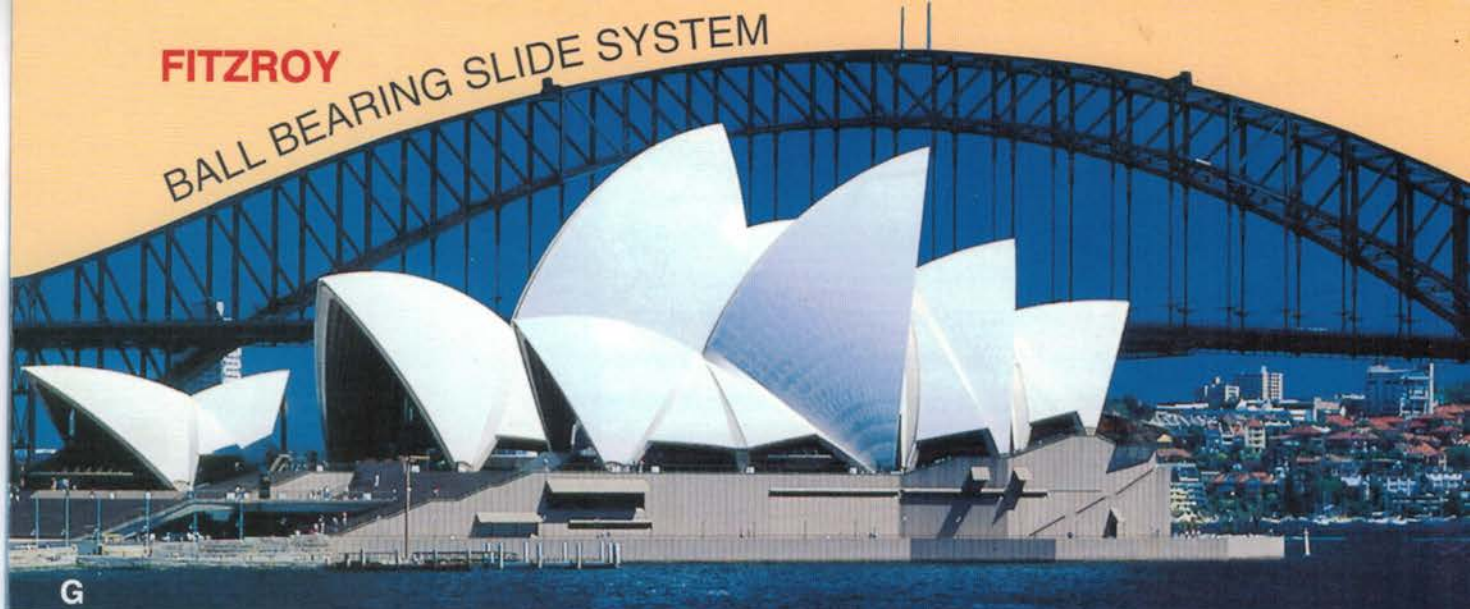
The unique design of the Fitzroy 'track grooves' and 'rolling balls' enables 2 tracks to be used in parallel without jamming or binding as is often the case with a wheel track system. Fitzroy Track Systems can be manufactured in a variety of materials. Commonly used metals include hard alloy aluminium and steel. Brass tracks can also be produced for special purposes when required.





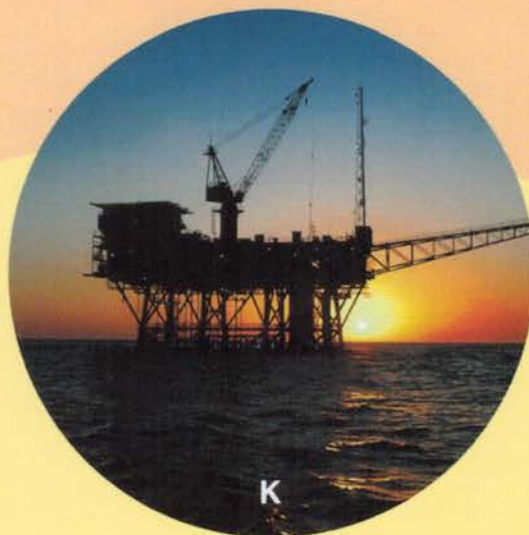
FITZROY

BALL BEARING SLIDE SYSTEM



Because the Fitzroy Track System is usually concealed unobtrusively in lintels and beams we have decided to illustrate some of the impressive projects that rely on 'Fitzroy' to keep rolling free and easy.

Used universally throughout the construction industry you'll find Fitzroy Track Systems in domestic houses, commercial premises, factories, hospitals, schools, jails, public buildings, banks, shopping centres, fire stations, power stations, hotels, offshore drilling rigs, sports stadiums, racehorse stables, swimming pool enclosures and many others.



Front cover: Fitzroy has been installed in many buildings throughout the Melbourne CBD.

- A. Crown Casino, Melbourne
- B. South Bank on The Yarra
- C. Victorian Arts Centre.
- D. Australian Sports Commission, Canberra
- E. Parliament House, Canberra
- F. Rialto Towers, Melbourne
- G. Sydney Opera House
- H. Rowing eights storage slides
- I. Melbourne Cricket Ground
- J. I.B.M. Melbourne
- K. Oil & gas mining platform, Bass Strait
- L. Esso, Melbourne



UNIVERSITY TESTED

Intensive repetitive tests were carried out on a typical section of FITZROY TRACK by the Melbourne University Mechanical Engineering Department. Track was put in continuous operation for 258 hours, which meant the door on the track opened & closed fully 130,000 times & travelled approx. 160kms. Test results were impressive:

Cage Wear - No evidence of wear appeared on either surface profiles or cage tongues after testing.

Ball Wear - Precision measuring found no change in ball diameter.

Track Wear - So minute was the track wear after testing it could be regarded as negligible - less than .0005".

Conclusion: *From these exhaustive tests the wear rate calculated was so low it was impossible to estimate the life of the track.*

Typical metal hardness test.

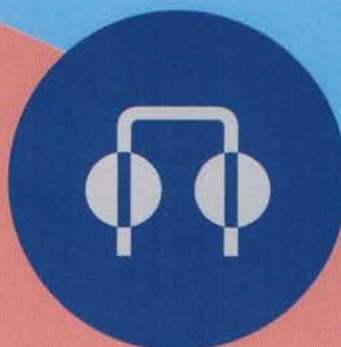
HERE'S HOW **FITZROY** WORKS

DOOR TRACK



OUTER SECTION

Manufactured from hard alloy aluminium, extruded to exacting tolerances and or machined steel to ensure the size and shape of the internal ball grooves. The section is usually made to the combined length of the door width and door travel. Track fixing bolts fit into the top extruded groove at easily adjustable centres.



BALL RETAINING CAGE

Steel channel is 1mm thick, punched with holes and lips each side at regular centres. The cage operates purely as a ball retainer and spacer and extends over two thirds of the outer section length. The cage does not share any load other than the weight of the steel balls.



INNER SECTION (Carrier Bar)

Manufactured from hard alloy aluminium, extruded to exacting tolerances and or machined steel to ensure the size and shape of the internal ball grooves. This section is usually less in length than the door width. Therefore, door weight is spread evenly over many steel balls at one time, greatly reducing the pressure required to slide the door.

WITHDRAWAL TRACK



Marshall's

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FITZROY - Australian Made and Proud of it.

FITZROY BALL BEARING WITHDRAWAL UNITS

New and varied applications are constantly being found for the successful Fitzroy Ball Bearing Slide System.

Bulky and very heavy battery racks in Australia's trains and famous Melbourne trams now slide smoothly thanks to "Fitzroy".

Innovative firemen in brigades across Australia have employed "Fitzroy" to help move heavy compressors, generators and fire fighting equipment dramatically reducing the number of muscle tears and strains to personnel.

M. Fitzroy fitted to new Indian Railways rolling stock built in Melbourne.

(Photo courtesy of Herald Sun.)

N. CFA brigade officer putting Fitzroy to work.

P. 140km/h Queensland Rail train on the Gold Coast line.

Q. Modern Melbourne tram with battery rack installation.

R. Tangara double decker train - Melbourne.

