



## WORLD CLASS MANUFACTURER TURNS 75

**W**ilson Transformer Company (WTC) was founded in 1933 by Jack Wilson, the father of the present Managing Director, Robert Wilson. The "Chief", as he was known to most of his early employees, was a man of vision, with the ability to turn ideas into reality – a difficult task in those days, when technical experience, equipment and capital were limited.



From humble beginnings in a small garage in South Melbourne, WTC has grown to become the largest Australian manufacturer of power and distribution transformers, recognised internationally as a manufacturer of superior products designed and manufactured to run reliably for many decades.

Jack Wilson was Managing Director and Chairman of WTC between 1933 and 1972. Robert Wilson joined the Company in 1970, becoming Joint Managing Director in 1975, Managing Director in 1979 and Chairman in 1994. Ed Wilson, Robert's eldest son, joined WTC in 2002 and was appointed Manufacturing Manager Power in 2007. The third generation is now making an impact.



*Photo Robert Wilson and portrait Jack Wilson*

### EARLY YEARS

In the early 1950's the Company moved its operations to Glen Waverley, the present site of its Head Office and Power Transformer manufacturing operations. The Glen Waverley site continuously expanded through the 1950's and 1960's. There are plans for significant further expansion.

Between 1963 and 1982, the Company operated a small distribution transformer manufacturing plant in South Australia to supply the South Australian market. This plant was closed after the establishment of the Wodonga operations.



For a period the Company also produced distribution transformers and locomotive transformers in a small plant in Maryborough Queensland, which it acquired with the takeover of Baldwin Transformers. The Queensland plant was closed in 1989.

### DISTRIBUTION TRANSFORMER PLANT

In 1981 the Company moved part of its existing distribution transformer manufacture to a new plant in the Albury/Wodonga National Growth Centre. This greenfield site enabled the Company to utilise modern manufacturing techniques and production flow to produce its newly developed range of distribution transformers.

A strategic decision was made in 1994 to create separate Power and Distribution Business Units to generate focus within the businesses. Following this decision, the remaining distribution transformer manufacture was transferred from Glen Waverley to Wodonga. As the market recovered in the 1990's this decision necessitated two expansions to the Wodonga site, which enabled the operation to be further developed into the world class facility it is today.



The plant in Wodonga produces standard and customised distribution transformers and compact substations up to 5000 kVA, at voltages up to 72 kV. The Distribution Business is focused on truly understanding our customer's requirements and delivering them consistently. Core capabilities are the supply of technically excellent, low total cost products, on short delivery, utilising excellent capabilities in ERP and supply chain management.

In the 2008 Albury Wodonga Business Excellence Awards, the Distribution Business Unit won awards for Excellence in Manufacturing and the Most Outstanding Business. This is in addition to similar awards received in 2003, 2004, 2005 and 2006. There were no awards in 2007.

### POWER TRANSFORMER PLANT

The Head Office and Power Transformer Manufacturing plant is located on a four-hectare site in Glen Waverley, 20 km east of Melbourne's CBD.

The Glen Waverley plant designs and manufactures generator, substation and auto transformers up to 250 MVA 362 kV, mobile transformers and substations, rectifier and furnace transformers, traction (both track-side and on-board locomotive) and other speciality transformers. Each transformer can be fitted with a conventional relay-based control and monitoring system or alternatively with the Dynamic Ratings DRMCC System.

Electrical design is completed using software ranging from the tender optimisation program to sophisticated finite element modelling (FEM) computer programs.



Our mechanical designers complete the internal and external design of a transformer using sophisticated 3D models and FEM of critical components. All design work is done in accordance with our quality management system.

Wilson Power transformers have been sold to customers throughout the world, including New Zealand, Indonesia, Malaysia, Saudi Arabia, the UAE and the UK. Orders for over 70 power transformers up to 120MVA 275kV have been received from the UK in recent years.

### SERVICES

Our dedicated Services unit offers a variety of services including transformer and tap changer component sales; new transformer installation and commissioning; relocation; testing; condition assessment and reporting; field service; OLTC maintenance and replacement; major refurbishment; repairs on-site or in-factory; rating upgrades; design modifications; replacement of windings, OLTC's, bushings and other major components; and installation of the Dynamic Ratings DRMCC system.

### TRANSFORMER MANAGEMENT

Dynamic Ratings, a subsidiary of WTC, makes the DRMCC (Dynamic Rating, Monitoring, Control and Communications) system, which is an integrated microprocessor-based monitoring and control system for power transformers. The systems is robust being built and tested to rugged design specifications for insulation strength, EMC capability and environmental temperature range, with self-testing and diagnosis capabilities. It allows users to work their assets harder by operating transformers safely closer to their thermal limits, thereby delaying capital investments. A subsidiary, DR Inc., has been supplying customers with DRMCC in the USA for over five years.

### JOINT VENTURES

In 1994 a JV EPE Wilson Transformers Sdn Bhd (EWT) was established in Malaysia where transformers in the range of 50 kVA to 2500 kVA and up to 33 kV are manufactured along the same principles as those in Wodonga. The JV plant is a major supplier in the Malaysian market.

In 2001 a JV United Transformers Electric Co (Utec) was formed in Saudi Arabia. Manufacture started in a 11,000m<sup>2</sup> re-equipped factory in Riyadh. By 2006 an expansion program to manufacture 15,000 distribution transformers and compact substations commenced enabling Utec to service the Middle Eastern market. More than 7,000 distribution transformers were despatched in 2007. A new distribution transformer plant in Syria will be completed in 2008.

In 2001 a JV laboratory was formed with US based T|H<sub>2</sub>b Analytical Services Inc., a world leader in oil analysis and diagnostic technology.

### QUALITY

The Company has been Quality accredited to ISO 9001 since 1990 and employs over 540 skilled and committed staff, including over 50 engineers and many people with extensive experience in transformer engineering, manufacture and service.

*Our Vision  
Wilson People working together  
with our Customers and Suppliers  
to build a secure future  
through Continuous Improvement*



## MAJOR ACHIEVEMENTS AND MILESTONES

- 1933 Wilson Electric Products began manufacturing in South Melbourne
  - 1950 Building work began in Glen Waverley
  - 1960 First 10 MVA 132 kV transformer produced for Woomera
  - 1969 Large expansion to factory and offices at Glen Waverley
  - 1970 Robert Wilson joined the Company
  - 1970 First 3 x 33 MVA 220 kV transformer despatched
  - 1972 Jack Wilson, the Company's founder, passed away
  - 1979 Robert Wilson appointed Managing Director
  - 1981 Distribution Transformer plant opened in Wodonga – highly commended in Victorian Engineering Excellence Awards
  - 1983 150 MVA 220 kV and 75 MVA 330 kV transformers produced
  - 1990 Quality accreditation to AS/NZS ISO 9001
  - 1994 EPE Wilson Transformer Sdn Bhd JV factory in Malaysia opened
  - 1998 240 MVA 275 kV transformers exported to Malaysia
  - 1998 Wodonga plant expanded and upgraded
  - 1998 3000 MVA output from Australian operations
  - 1998 UK Office opened
  - 1999 First rapid response 35 MVA 132 kV trailer-mounted transformer
  - 1999 Dynamic Ratings DRMCC –T1 product launched
  - 2000 United Transformers Electric Co (Utec) Saudi Arabian JV formed
  - 2001 T|H<sub>2</sub>b Analytical Services JV Laboratory opened
  - 2001 New polemount and padmount products launched
  - 2002 Dynamic Ratings Inc. USA office opened
  - 2002 New Vapour Phase drying plant commissioned
  - 2003 Dynamic Ratings modular DRMCC-T3 product launched
  - 2006 New Dynamic Ratings offices open at Glen Waverley
  - 2006 8400 MVA output from Australian operations
  - 2008 T|H<sub>2</sub>b Analytical Services Sdn Bhd established in Malaysia
- ### EXPORT AWARDS
- 1993 Governor of Victoria Export Award – Certificate of Commendation for Large Manufacturers
  - 1995 AEEMA Exporter of the Year – Highly commended in Energy category
  - 1997 Austenergy Exporter of the Year – Winner Energy Systems over A\$25m
- ### SUPPLIER & BUSINESS AWARDS
- 1996 SEQEB – Supplier Quality Award – Finalist in Substation Plant
  - 1997 Energex – Supplier Quality Award – Project Materials
  - 1998 Energex – Supplier Quality Award – Substation & Distribution Plant
  - 1999 Energex – Supplier Quality Award – Most Innovative Supplier
  - 1999 Energy Australia – Supplier of the Year
  - 2003 Albury Wodonga Business Excellence Awards – Employer of Choice
  - 2004 Energex – Supplier Quality Award – Outstanding Commitment to Customer Service
  - 2004 Albury Wodonga Business Excellence Award – Excellence in Innovation
  - 2005 Energex – Supplier Quality Award – Substation & Distribution Plant
  - 2005 Albury Wodonga Business Excellence Award – Excellence in Manufacturing, Business & Community Partnerships
  - 2006 Energex – Supplier Quality Award – Substation & Distribution Plant
  - 2006 Albury Wodonga Business Excellence Awards – Employer of Choice, Excellence in Diversity in the Workplace, Excellence in Manufacturing, Overall Award for Business Excellence
  - 2007 Energex – Supplier Quality Award – Substation & Distribution Plant
  - 2008 Albury Wodonga Business Excellence Awards – Excellence in Manufacturing and Most Outstanding Business