



## SUSTAINABILITY AND INNOVATION

The sugar industry is constantly evolving and becoming more efficient. In order to do this the industry requires innovative engineers and scientists to be able to come up with practical solutions to the day-to-day challenges of maintaining efficient operation of a challenging process.

With a strong commitment to sustainability and the community in which we operate, Sunshine Sugar has a proud record. The generation of enough electricity to power 60,000 homes from accredited renewable resources, mainly the waste fibre material left from the processing of sugar cane is a good example.

Our recent Bonsucro certification demonstrates our commitment to fair labour practices and environmental protection. This makes us the only supplier of refined and raw sugar in the world with this certification from the farm to the final product.

For more information on Bonsucro go to [www.bonsucro.com](http://www.bonsucro.com)

## Contact Details

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## OUR VALUES:

**Teamwork - Integrity - Excellence**  
**Accountability - Safety**



100% AUSTRALIAN OWNED



## Science and Engineering Careers in Sunshine Sugar

The sugar industry has been part of life in northern New South Wales for more than one hundred years.

The industry is a significant contributor to the economy of the area and provides the community with employment opportunities, growth, sustainability and prosperity.

**OUR FUTURE IS BRIGHT!**

**Talk to us about how you can become a part of it.**

[www.nswsugar.com.au](http://www.nswsugar.com.au)

# CAREERS

## IN SUGAR MANUFACTURE

Sunshine Sugar offers many opportunities and exciting careers for people that are interested in the science and engineering fields in particular. These skills are utilised in our sugar mills and factories in the areas of:

- Process Control,
- Metal Fabrication,
- Electrical,
- Management and Supervision.

### PROCESS CONTROL

Process control is the measurement of the process and the assisted automated actions taken to control the process.

Some of the more common parameters that are controlled include Pressure, Temperature, Flow, Conductivity, Load, and Stress.

Each of these parameters is most commonly measured using electronic devices, each of which has to be maintained and calibrated to ensure accurate readings.

These measurements are then sent to a computer system that is programmed to control the process.

### METAL FABRICATION

The sugar milling operation is a heavy industry with some individual pieces of equipment weighing in excess of 100 tonnes. All the pieces of equipment require repair and maintenance. Metal tradespeople are able to fabricate most things that we require on site from small pump shafts that have to be made by turning in a lathe to large vessels that may be many stories high that, when filled, will contain hundreds of tonnes of material.

### ELECTRICAL

Industrial electricians working at the sugar mill are exposed to a greater variety of issues than normal electricians. Motors the size of small cars, generators and high voltages are all part of the day to day challenges that sugar mill electricians have to deal with. The range of equipment is as varied as the type of control. This ranges from microscopic fibre optic transmission cable through to 66,000V wiring and control. The ability to be able to fault find quickly and efficiently is also a pre-requisite in order to maintain the constant 24h/6 month, operation of the factories

### MANAGEMENT AND SUPERVISION

The majority of managers and supervisors that work within the sugar mills come from an engineering or science background. The skills that they learn studying or doing a trade assist them to make quick and accurate decisions about the operation of the mills and factory based on logic and knowledge.

Many of the supervisors have a tertiary qualification. Mechanical and chemical engineering degrees provide a foundation for a career as a supervisor or manager within the sugar industry.

These skills are also used in collaborative research into new technologies with universities and other organisations.



The only manufacturer of locally produced, certified sustainable, raw and refined sugar products.