

SUGAR

INDUSTRY SOLUTIONS

ROADMAP

Solutions For Every Application



MiMOTION
Australia

SUGAR ROADMAP

1 Cane Marshalling Yard

Cane is delivered from the cane fields in mesh bins hauled by diesel locos

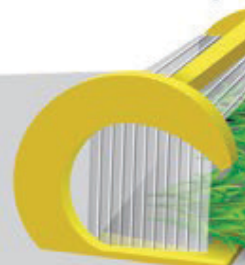


2 Cane Receival



3 Tippler

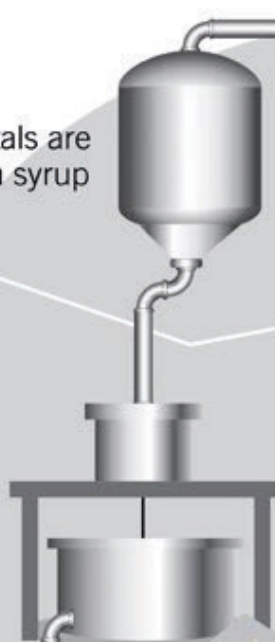
Cane bins and emptied



9 Crystallisation & Separation

Sugar crystals are grown from syrup

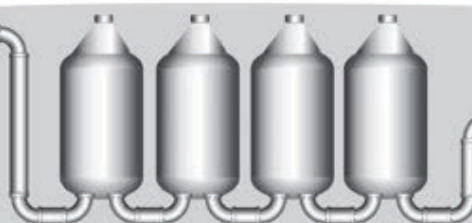
Sugar crystals are grown from syrup



Molasses used as stock feed and for ethanol production

7 Evaporator Station

Water is evaporated out of the juice by steam to form syrup



Clarifier

Removes dirt

Clear juice

Mud set to bottom

8 Mud Filtration

Mud is returned to the Canefields as fertiliser



Centrifugals

Sugar is separated from molasses by spinning



Wet raw sugar

SUGAR DRIERS

Sugar is dried & cooled



Weighbridge

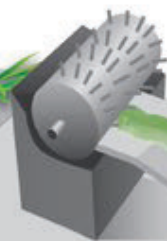
Cane are weighed
ed



Cane carrier

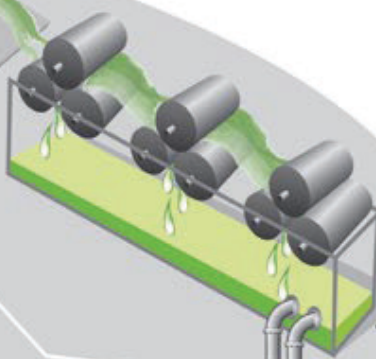
4 Shredder

Cane is shredded



5 Milling Train

Juice is crushed out
of shredded cane



6 Heater

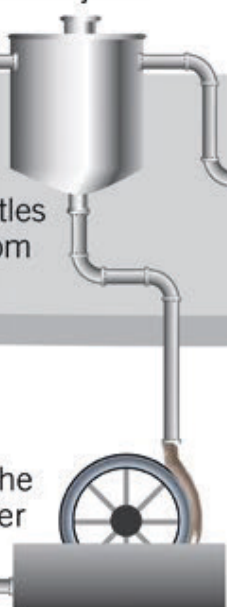
Juice is heated
and limed



from juice

tles
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er



12 Boiler Station

Steam for electricity
generation, turbines
& processing



11 Bagasse Storage



Laboratory

Juice is analysed
for sugar content



10 Bulk Sugar Handling

SUGAR HOPPERS
Bulk storage



Dry sugar

Raw sugar delivered to bulk
sugar shipping terminal by truck

01 | Cane Transport

- AP Assembly Bearings – **TIMKEN**
- Cane Bin Bearings – NTN, NSK
- Driveshafts – HARDY SPICER
- Duo Cone Seal – SIL
- Fasteners – HOBSON ENGINEERING
- Filters
- Gmeinder Gearbox Bearings – NSK, **SCHAEFFLER**, NTN
- Green Stripe Heavy Duty Belts, Radiator and Turbo Hose, Hose Clamps – **GATES**
- Heavy Duty Cog Belts – **TIMKEN**
- Heavy Duty Diesel Oil and Hydraulic Oil – **GULF WESTERN OIL, SHELL**
- Lubrication Systems **ALEMLUBE**
- Molded Oil Bearings – NSK
- Sealed Cane Bin Bearings – **SCHAEFFLER**
- TF Series Spherical Roller Bearings – NSK



02 | Cane Receival

- Conveyor Chains – EWART
- Gearboxes – **BONFIGLIOLI**, NORD
- Hydraulic Seals – SIL



03 | Tippler & Cane Carrier

- Bearings and SNS Housings – **SCHAEFFLER**, **TIMKEN**, NTN
- Bearings – NSK, **SCHAEFFLER**, NTN
- Brakes and Couplings – VULCAN
- Carrier Chains – EWART
- Couplings **REXNORD**, **TIMKEN**
- Gearboxes – **BONFIGLIOLI**, NORD



04 | Shredder

- Accumulators – HYDAC, STAUFF
- Actuators – PARKER, ENERPAC
- Anti Fretting Paste – MOLYKOTE
- Brass Cage Spherical Roller Bearings – **SCHAEFFLER**, NSK, NTN
- Cooling Systems – HYDAC
- Couplings – **REXNORD**
- Filtration – HYDAC, STAUFF, PARKER
- Hydraulic Accessories – STAUFF, HYDAC
- "TL" series Brass Cage Spherical Roller Bearings – NSK
- Pumps – REXROTH, PARKER, HYDAC, ENERPAC
- Quick-Flex Couplings – **TIMKEN**
- Valves – REXROTH, PARKER, HYDAC



05 | Milling Train

- Accumulators – HYDAC, STAUFF
- Actuators – PARKER, ENERPAC
- Bearing Housing & Adaptor Sleeves – **TIMKEN**, NTN
- Conveyor Pulleys – ABB
- Conveyor and Drive Chains – EWART
- Cooling Systems – HYDAC
- Couplings – **REXNORD**
- Electric Motors and Variable Speed Drives – **TECO**
- Fasteners – HOBSON ENGINEERING
- Filtration – HYDAC, STAUFF, PARKER
- Gearboxes – **BONFIGLIOLI**, NORD
- Hydraulic Accessories – STAUFF, HYDAC
- Hydraulic Nuts – TECHNOFAST
- Lifalign® Gear Coupling – **FALK**
- Lubrication Systems – **ALEMLUBE**
- Pumps – REXROTH, PARKER, HYDAC, ENERPAC
- Spherical Roller Bearings – NSK, NTN, **SCHAEFFLER**
- Magnetic Filtration – ONE EYE INDUSTRIES
- Valves – REXROTH, PARKER, HYDAC



06 & 07 | Pans Clarifiers & Evaporation

- Belt Grip – **CRC**
- Couplings – **REXNORD**
- Electric Motors and Variable Speed Drives – **TECO**
- Fasteners – HOBSON ENGINEERING
- Gaskets – FLEXITALLIC



- Gearboxes – **BONFIGLIOLI**, NORD
- Heavy Duty Drive Belts – **TIMKEN**, **GATES**
- Juice Heater Seals – SIL
- Pulleys and Taperlocks – FENNER
- Pumps – NEW / REPAIR SIL
- Pump Tapered Roller Assemblies – **TIMKEN**
- Quick-Flex Couplings – **TIMKEN**
- Crete, High Impact Wearing Compound, Rapid Rubber and Ceramic Coating – **LOCTITE**
- Gland Packing – VULCAN



08 | Mud Filtration

- Bearing Isolators – SIL
- Clean Flight Pulley – ABB
- Electric Motors and Variable Speed Drives – **TECO**
- Filtration – 3M
- Gearboxes – **BONFIGLIOLI**, NORD
- Lubrication – GRACO
- Smartwasher – **CRC**
- V-Belts – FENNER



09 | Crystallisation & Separation

- Belts for Fugal Drives – **GATES**
- Belts for Fugal Drives – **TIMKEN**
- Couplings – **REXNORD**, **TIMKEN**, FENNER
- Driveshafts – HARDY SPICER
- Electric Motors and VSD – **TECO**
- Fasteners – HOBSON ENGINEERING
- Gearboxes – **BONFIGLIOLI**, NORD
- Heavy Duty Drive Chains – EWART
- Mechanical Seal – SIL, HI-FAB
- Water Management System – SIL, HI-FAB



10 | Bulk Handling & Storage

- Conveyor Pulleys – MARTIN
- Couplings – **REXNORD**
- Dodge Gearboxes – ABB
- Electric Motors and VSD – **TECO**
- Fasteners – HOBSON ENGINEERING
- Gearboxes – **BONFIGLIOLI**, NORD
- Quick-Flex Couplings – **TIMKEN**



11 | Bagasse Handling

- Bagasse Reclaimer Chain – EWART
- Bagasse Reclaimer Slewing Bearing – ROTHE ERDE
- Brakes – ALTRA, TWIFLEX
- Dodge Conveyor Pulleys and Sprockets – ABB
- Fasteners – HOBSON ENGINEERING
- Gearboxes – **BONFIGLIOLI**, NORD
- Motors – **TECO**
- Super HC and Predator – **GATES**

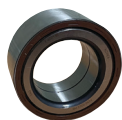


12 | Boiler Station

- Accumulators – HYDAC, STAUFF
- Actuators – PARKER, ENERPAC
- Bearing Housings and Adaptor Sleeves – **TIMKEN**, NTN, **SCHAEFFLER**
- Cooling Systems – HYDAC
- Electric Motors and VSD – **TECO**
- Filtration – HYDAC, STAUFF, PARKER
- Gaskets – FLEXITALLIC
- Gear Couplings – **REXNORD**
- Gearmotors – **BONFIGLIOLI**, NORD
- Gland Packing – VULCAN
- Heavy Duty Belt Drives – **GATES**
- Heavy Duty Cog Belts – **TIMKEN**
- High Temperature /Thermal Protection Sealing – SIL
- Hydraulic Accessories – STAUFF, HYDAC
- Pumps – REXROTH, PARKER, HYDAC, ENERPAC
- Spherical Roller Bearings – NSK, **SCHAEFFLER**, NTN, **TIMKEN**
- Valves – REXROTH, PARKER, HYDAC



PROBLEM SOLVERS



Schaeffler Sealed Cane Bin Bearings

Schaeffler's fully sealed for life Cane Bin Bearings require no further maintenance once fitted, saving time and money.

Leading Questions

- Did you know eliminating the need for lubrication saves both time and money.
- Do you have a preference for open style Cane Bin Bearings?
- Is operator safety important to your business?



TECO MAX e3 Electric Motor

Built strong for the Sugar industry. The ultimate machine, with the features and performance desired by the world's top sugar processors.

Leading Questions

- Are you using the latest efficiency electric motors?
- Is power consumption savings important to your company?
- Did you know you can remotely monitor TECO electric motors and controls?



Timken Quick-Flex Couplings

Quick-Flex couplings are direct replacements for virtually all comparably sized couplings in use. Quick-Flex couplings require no lubrications and are easy to install and maintain.

Leading Questions

- Coupling alignment and access can be a major issue, are you aware of the Timken Quick-Flex coupling?
- Do you currently laser align your couplings?
- Are they the latest easy fit product?



Schaeffler Double Row Spherical Roller Bearings

A robust bearing for robust applications. Extended bearing life and improved reliability

with Schaeffler's brass or steel cage design. Ideal for Schredder applications.

Leading Questions

- Does your Schredder run at high speed?
- Do you require maximum reliability on this part of plant?
- Did you know we can provide expert fitting of your bearings?



Schaeffler's New Generation SNS Housings

The unique housing design gives an increase in the life of the Spherical Roller Bearings fitted in the housing of up to 50%, ideal for crystalliser drives.

Leading Questions

- Is long bearing life and fewer change-outs of benefit to you?
- Do you fit condition monitoring devices to your housings?
- Do you grease lubricate your bearings?



Alemlube 20V Lithium-ion Cordless Grease Gun

This unit can deliver up to 35 cartridges per battery charge. Ideal for large plant or small plant lubrication and easy operator dispensing. No more operator fatigue.

Leading Questions

- Do you want to increase the efficiency of your plant operations?
- Is operator safety important to your company?
- Did you know you can adjust the grease delivery rate?

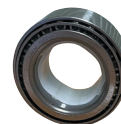


Hydac Hydraulic Fluid Condition Monitoring

The CMExpert Hydraulic Fluid Condition Monitoring unit was designed to provide a complete package solution for hydraulic and lubrication system monitoring.

Leading Questions

- Have you experienced operational downtime due to fluid contamination?
- Have you considered 24/7 fluid monitoring?



NTN Cane Bin Bearings

NTN Cane Bin Bearings offer precision, durability, and a proven track record of performance for 6 and 10 tonne wagons.

Leading Questions

- Can your operations benefit from long bearing life?
- Did you know we carry vast stock of Cane Bin Bearings locally?
- How important is bearing longevity to your maintenance programs?



Gates Predator V-Belts

High quality belts, Gates Predator® V-belts are unique in their extreme robustness and high load carrying capability, they are unrivalled.

Leading Questions

- What are the problems that you experience with your belts?
- Have you considered reducing your long term belt costs?
- What belt issues would you like to resolve?



Ewart Bagasse Conveyor & Elevator Chains

Ewart chains are manufactured to withstand the rigors of constant use and to increase the efficiency of sugar mills.

Leading Questions

- Is changing a conveyor chain a major project for site?
- Would a chain failure cause a major disruption to production?
- What brand of chain do you currently use?


Service & Engineering

Condition Based Assessment

- Site Surveys
- Condition Monitoring
- Predictive Maintenance
- Return Part Analysis
- Load Simulation and Finite Element Analysis
- Fall Mode Effect Analysis

Process Improvements

- Design and Drafting
- Product Application Engineering
- Reverse Engineering
- Installation and Commissioning
- Corrective Services
- Special Purpose Manufacture
- Component Standardisation
- Asset Care and Rotables



Anytime. Anywhere. **Always Here.™**

MOTION AUSTRALIA is the leading supplier of original and replacement parts for Australian industry as well as a premier provider of engineered solutions to increase customer's productivity and uptime. With the goal of delivering a best in class customer experience, Motion **offers many valued-added services, including engineering, design and fabrication along with workshop and on-site services.**

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