

ENGINEERING
TOMORROW

Danfoss

Case study | Heat exchangers

20%

reduction in steam
consumption
with SONDEX®
evaporators

SONDEX® raises the standard in Brazil

Since its launch in 2016, the SONDEX® branch of Danfoss Brasil has worked hard to become the leading manufacturer of plate heat exchangers for customers across Latin America. In December 2017, the company took giant strides towards fulfilling its high ambitions when it delivered four evaporators to Bioenergética Aroeira for use in the production of sugarcane ethanol – the biggest delivery of its kind ever manufactured in Latin America.



SONDEX® fuels Brazil with sugarcane ethanol

The sugar industry is big business around the world – from South America to Asia – producing products such as refined sugar, molasses, and ethanol for use as viable biofuel. Brazil is the world's largest producer of ethanol from sugarcane with the company Bioenergética Aroeira being one of the leading sugar and ethanol manufacturers in the country – a market position that SONDEX® has helped achieve.

In recent years, there has been a growing demand for renewable and energy-efficient alternatives to traditional hydrocarbon-based fuels. The production and demand for ethanol has proven to be a viable, sustainable, and CO₂ neutral alternative to traditional hydrocarbon-based fuels for the benefit of us all.

Therefore, it is no surprise that more and more companies are investing in their sugar production to lead the transition towards more renewable fuels – and one of the frontrunners is Bioenergética Aroeira.

The biggest delivery of its kind

At the Bioenergética Aroeira plant, Danfoss Brasil has installed different types of SONDEX® plate heat exchangers for sugar production. In December 2017, four special evaporators, type SEC174, were installed, which was the biggest delivery of its kind ever manufactured in Latin America.

Prior to the record-breaking installation, the SONDEX® branch of Danfoss Brasil had proven to be a reliable and innovative partner with the delivery of four SF131 Free Flow plate heat exchangers, one SF101 Free Flow plate heat exchanger, and one S100 traditional plate heat exchanger. They were all up and running through the full 2017 season and are now in operation for the 2018 season, with high customer satisfaction, which leaves no doubt that the cooperation with Danfoss Brasil is fruitful:

“Fact is, we are pleased with our technical partnership with the SONDEX® branch of Danfoss Brasil. By utilizing the leading technology from SONDEX®, we now have an excellent solution that will help us save energy,” explains Dr. José Rubens Bevilacqua, CEO, Bioenergética Aroeira, who continues:

“The SONDEX® plate evaporators will help us reduce our steam consumption by 20%. This will have a positive financial impact on our business, so we expect the new evaporators to pay for themselves in just three years.”



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Dr. José Rubens Bevilacqua,
CEO, Bioenergética Aroeira



How SONDEX® has helped Bioenergética Aroeira's sugar production

The SONDEX® branch of Danfoss Brasil has delivered the following products to Bioenergética Aroeira:

- Four SF131 Free Flow plate heat exchangers used for heat recovery on the clarified juice
- One SF101 Free Flow plate heat exchanger used for crude juice heating
- One S100 traditional plate heat exchanger used for heating the clarified juice
- Four SEC174 plate evaporators used for concentrating the sugar content in sugarcane juice



SONDEX® products offer a wide range of benefits

- Gentle treatment and even distribution of the media provide the highest possible product quality
- High heat transfer efficiency and extended intervals between service ensure operation for an entire campaign with minimum downtime and maximum value for money
- Large plate gap designed to combat fouling with sizeable plate channels and no stagnant zones

This enables Bioenergética Aroeira to operate at full capacity throughout an entire campaign without losing valuable production time and product output.

Did you know ...

SONDEX® plate heat exchangers are available for all kinds of different applications e.g. vegetable oils, utilities, marine, and sugarcane processing.

Joining forces to strengthen success

As part of the Danfoss Group, the SONDEX® branch of Danfoss Brasil offers the same high-level product quality as its parent company with all plate heat exchangers engineered to obtain a high thermal efficiency with a low pressure drop.

Sondex Holding A/S was acquired by Danfoss in 2016 and leaning on the well-known SONDEX® brand has helped Danfoss Brasil to position itself as a leading plate heat exchanger manufacturer in the Latin American market, providing greater opportunities to serve customers with an extensive portfolio of optimized heat transfer solutions:

“By joining forces, we can offer a broader, even more competitive and innovative product and service portfolio within heat transfer to deliver perfect solutions for our customers. By leveraging the combined strength of two great companies, we aim to take market leadership in plate heat exchangers,” concludes Carlos Funes, General Manager, SONDEX® branch Danfoss Brasil.

Bioenergética Aroeira is one of the companies which has benefited from the fact that Danfoss, with the SONDEX® product line of heat exchangers, is capable of supplying heat exchangers for the entire sugar refinery application.

Are you the next in line?



Carlos Funes, General Manager, Sondex Brazil



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Carlos Funes, General Manager, SONDEX® branch Danfoss Brasil.



Want to learn more about the best-in-class plate heat exchangers?

At Danfoss, we help professionals all over the world reduce energy consumption and increase heating efficiency with our wide range of plate heat exchangers.

If you would like to know more about how we can help you succeed, please visit heatexchangers.danfoss.com or contact your local sales representative.

Facts about SONDEX® heat exchangers

Sondex is the leading global market player in heat transfer technologies and offers the world's most extensive product range in plate heat exchangers with connections from 25mm to 650mm in diameter.

SONDEX® plate heat exchangers offer both standard solutions and custom-made heat exchangers adapted for flow, pressure, and temperature in transmission and distribution grids.



Danfoss A/S

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