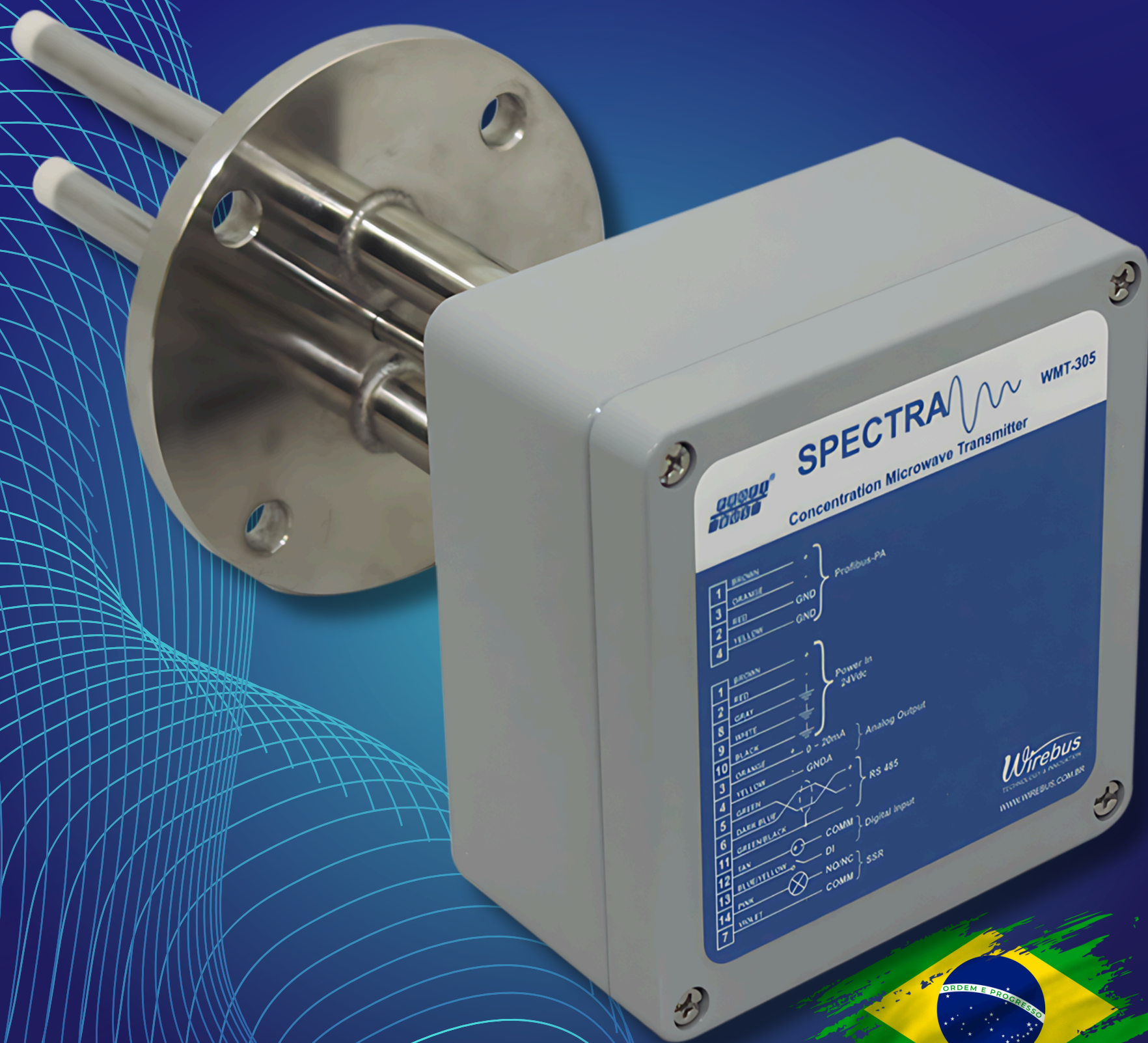


# SPECTRA

## Microwave Concentration Transmitter

BRIX CONCENTRATION BAUMÉ



**Wirebus**  
TECHNOLOGY & INNOVATION

# SPECTRA



+550 devices sold, installed  
and work in Brazil and overseas!

*Wbs*

# SPECTRA



PROVEN QUALITY  
THE LEADING COMPANIES IN THE  
SUGAR-ENERGY SECTOR APPROVE!



atvos

raízen



*São Martinho*



COFCO INTL



Tereos



Pedra Agroindustrial S/A



USINA  
CORUPIPE



adecoagro

Wbs

# SPECTRA



## BASIC FEATURES

National Leader

Technical support in Brazil

Automatic cleaning system (self-cleaning)

Easy configuration and calibration, by Wireconfig Software (Free)

Communication in Profibus DP (GSD; Generic Profile)

Modbus Communication



# SPECTRA



## TECHNICAL CHARACTERISTICS

Integrated PT-100 for temperature compensation and 4-20 mA retransmission

Microwave frequency: 1.9 to 2.5 GHz (exclusive)

Superior accuracy and repeatability

Linearization by 4th order polynomial

IP65 protected housing and DN-65 flange

High performance connectors with quick coupling



## APPLICATIONS – BRIX Measurements

Sucrose

Pre Evaporator, Evaporator, Syrup, Molasses Dilution

Cookers of types A, B, C and Refined

Wort in Fermentation

Baumé in the Preparation of Milk of Lime and Sucrose

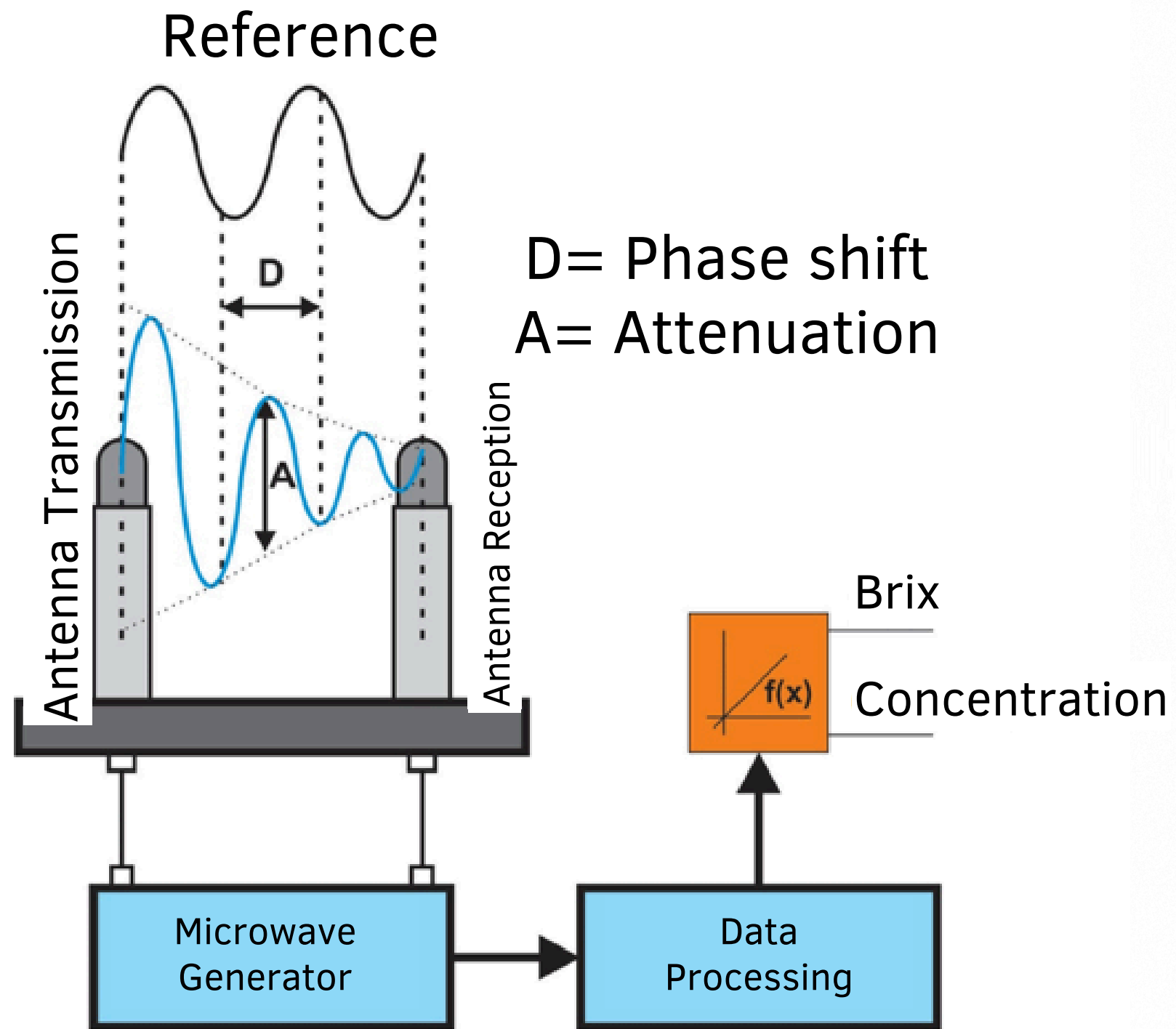
Others: Belfano Sugar, “Caromba”, Liquid Sugar

Provide online measurements of the Brix/Concentration in the most varied industrial processes.  
For example: Sugar crystallization, Syrup, must, juice concentration and others.



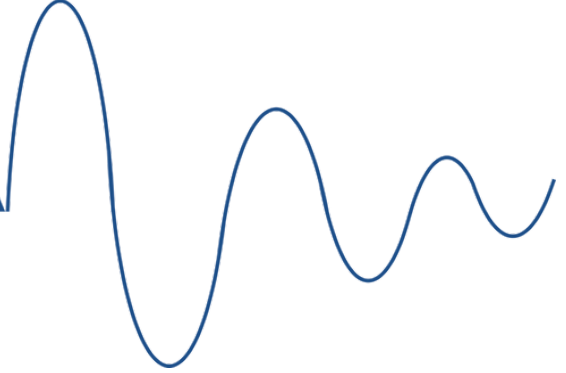
# SPECTRA

## How does it work?





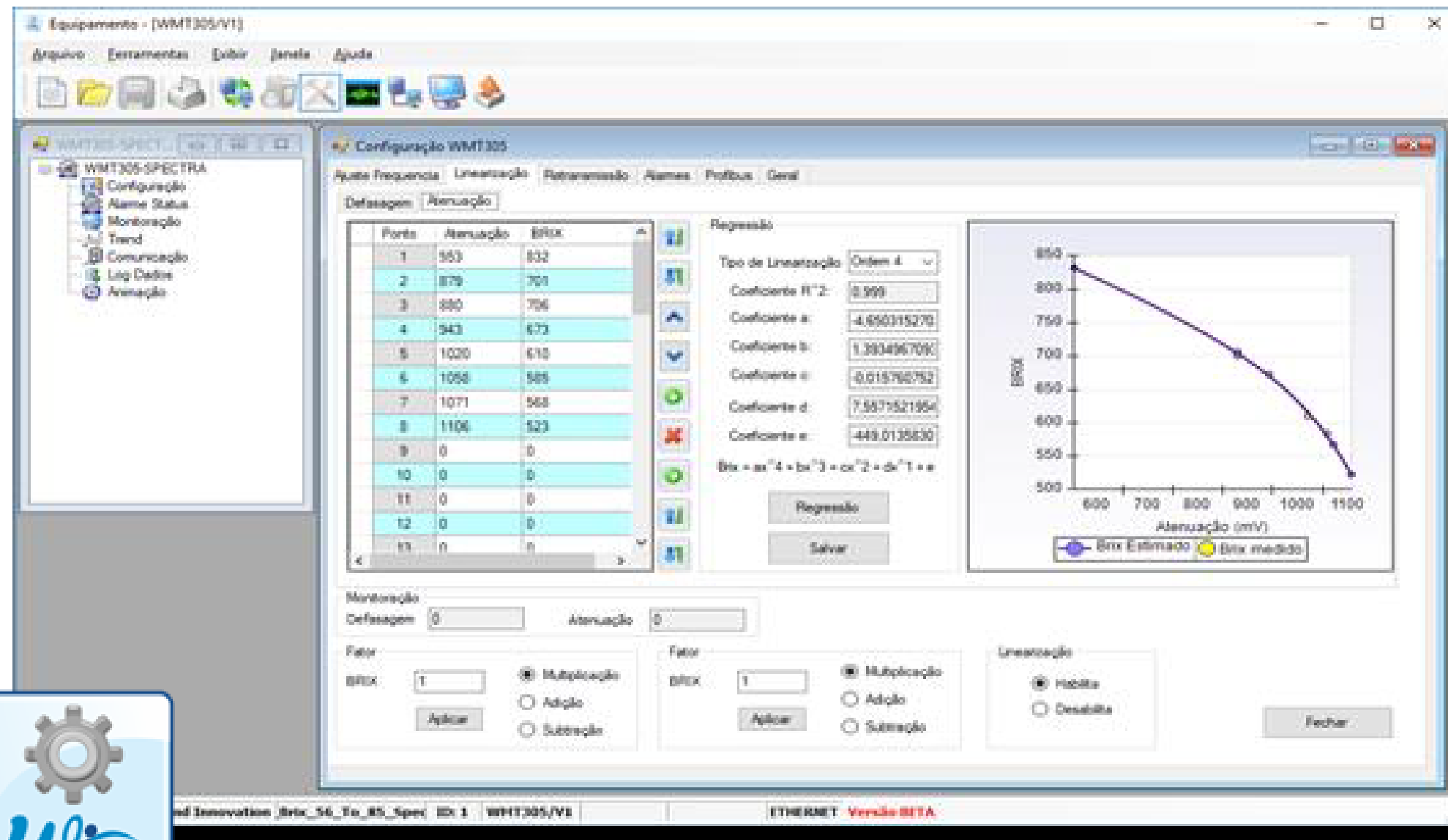
# SPECTRA



## Intelligence in Brix Measurement

# SPECTRA

# SOME APPLICATIONS...



# SPECTRA Sugar Crystallization Process



# SPECTRA

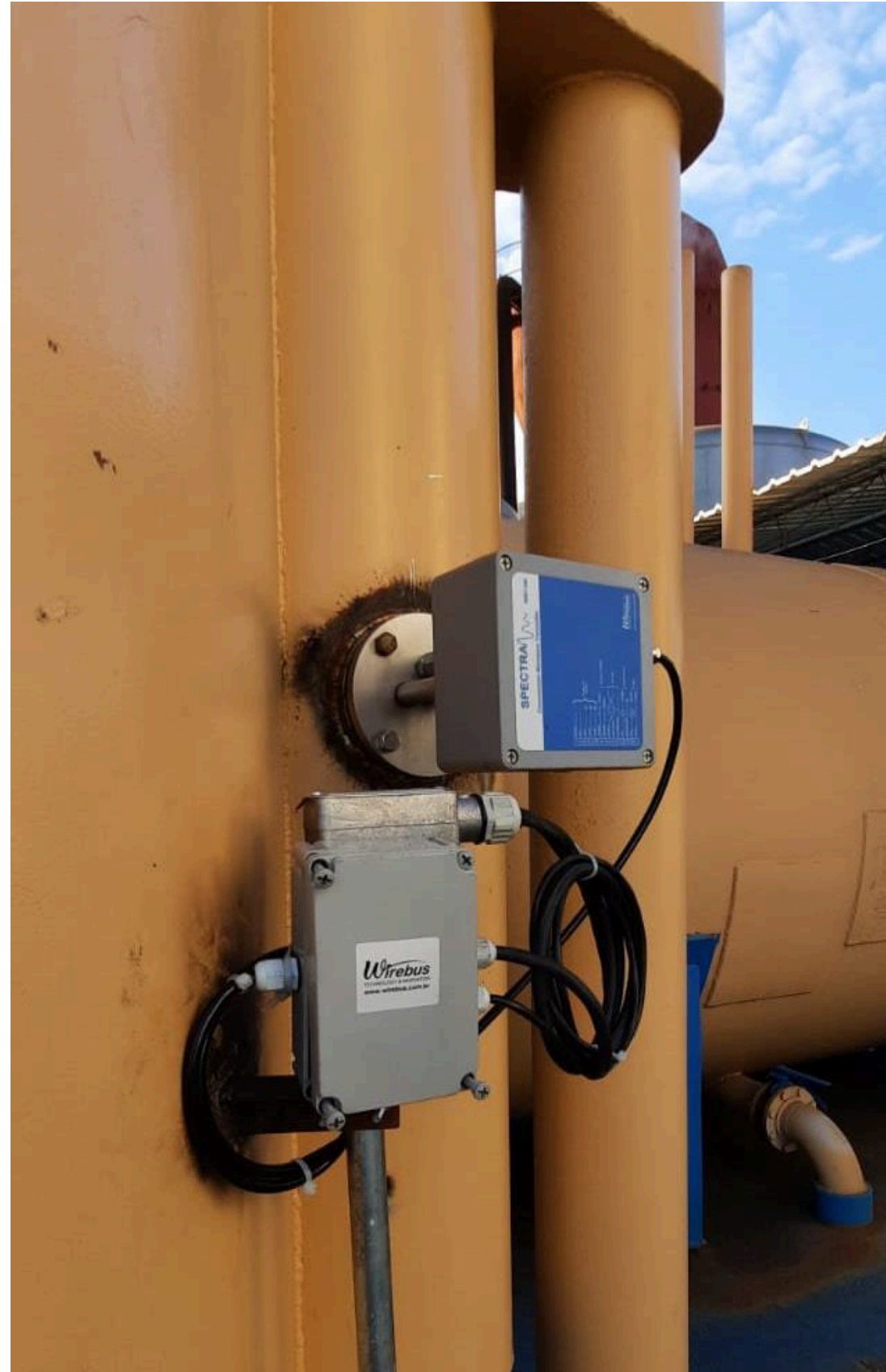
## Wort - Fermentation



Wbs

# SPECTRA

## Molasses Dilution



# SPECTRA

## Evaporators



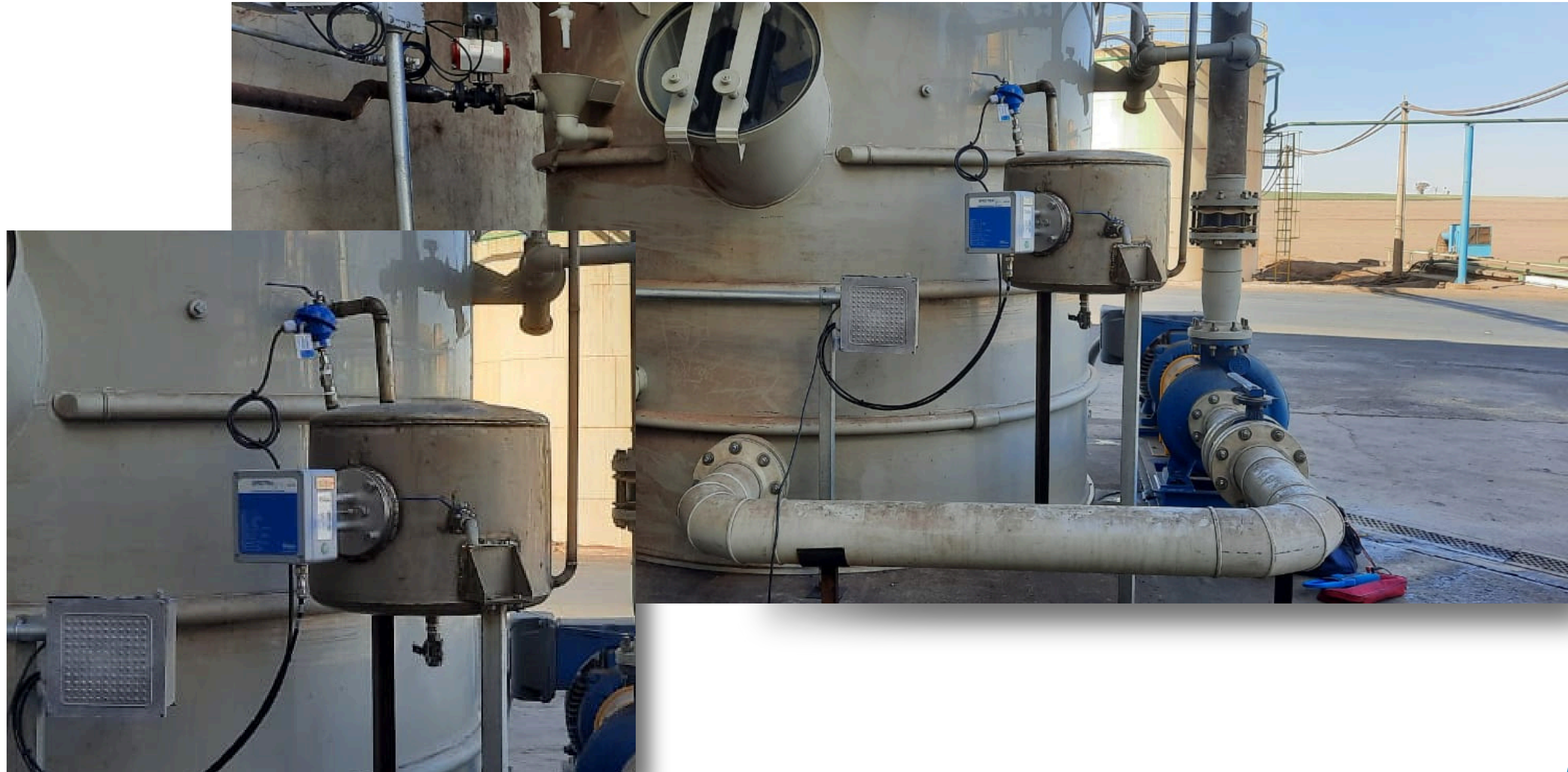
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## Pre-Evaporator



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## Sugar Powder Recovery (Belfano process)



# BE A PARTNER!



**Wirebus**  
TECHNOLOGY & INNOVATION

ALCOESTE BIOENERGIA FERNANDOPOLIS S.A

RAÍZEN ENERGIA S.A (CONTINENTAL)

USINA CORURIBE (CAMPO FLORIDO)

SANTA MARIA INDUSTRIA DE ALCOOL LTDA

USINA AÇUCAREIRA SÃO MANOEL S/A

USINA ALTO ALEGRE (SANTO INÁCIO)

USINA ALTO ALEGRE (ALTA FLORESTA)

USINA SANTA ISABEL S/A

USINA SANTO ANGELO LTDA

OSWALDO RIBEIRO DE MENDONÇA (COLORADO)

PEDRA AGROINDUSTRIAL S/A

USINA CERRADÃO LTDA

PARAPUÃ AGROINDUSTRIAL S/A

USINA GOIANÉSIA S/A

TEREOS (SEVERINIA)

USINA ENERSUGAR S/A ACUCAR E ALCOOL

USINA UNIÃO E INDÚSTRIA S/A

WD AGROINDUSTRIAL LTDA

RAÍZEN ENERGIA S.A (VALE DO ROSÁRIO)

USINA SÃO LUIZ S/A

NARDINI AGROINDUSTRIAL LTDA

SÃO MARTINHO S/A

# *Wirebus*

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