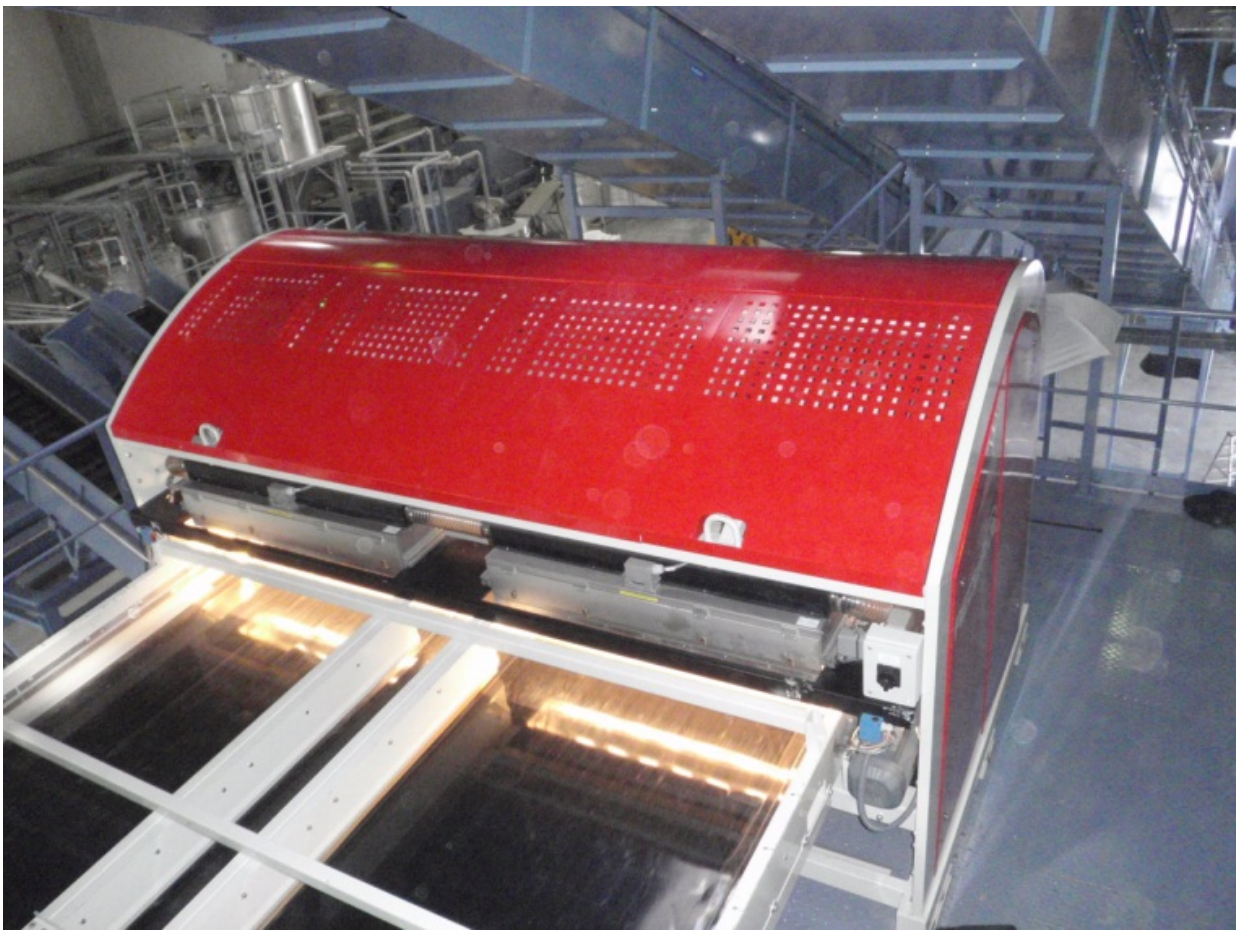
CASE STUDY

KRUSCHITZ – AUSTRIA

PLASTICS SORTING
PET RECYCLING PLANT



REDWAVE®

PLASTIC
SORTING

CASE STUDY

KRUSCHITZ – Austria – PLASTICS SORTING / PET RECYCLING PLANT

REDWAVE

> *The planning phase and realization of our requirements were perfectly implemented by BT-Wolfgang Binder GmbH. The REDWAVE sorting machines achieve reliable sorting results also in case of worse input qualities. We also want to emphasize the fast assistance in case of plant problems as well as a very good service management.*
>
> *Patrick Grutze, Facility Manager of Kruschitz.*

CUSTOMER

Since 1999 Kruschitz has been operating the first PET Recycling Plant in Austria at its premises in Völkermarkt (Carinthia). Due to targeted investments in modernization this plant is still one of the most modern facilities in Europe to produce PET flakes used in the plastic industry for fibres or foils. In 2006 the commissioning of the first bottle-to-bottle-plant for the production of food suitable regranulate has taken place. The re-granulate is mainly used to produce PET beverage bottles.

REQUIREMENTS

The difficulty of the recycling of PET bottles for the production of PET flakes and granulates is to ensure a constant quality. In 2009 the decision has been taken to invest in a sensor-based sorting technology on the basis of near-infrared in order to meet this challenge.

SOLUTION

A special feature of the plant is that it consists of two lines. Some parts of the facility, however, such as the ballistic separator and the optical sorting are made up of only one single line to increase the cost-effectiveness. That means that the REDWAVE sorting machine is divided in its width of 2,8 meters. The fractions PET clear and PET colour can be programmed independently of each other. These fractions are precisely ejected by means of air pressure and are directly transported to the downstream cutting mills. An additional optical resorting prevents loss of PET clear and increases the economic efficiency of the plant.

TECHNICAL DATA

TYPE OF MACHINE	1 REDWAVE 2800 NIR/C 64 RB 2 Way 1 REDWAVE 1000 NIR/C 64 RB 2 Way
INPUT MATERIAL	PET bottles with impurities (max. 10%)
CAPACITY	3 t/h
SENSOR SYSTEM	Near-infrared sensors with colour sensor
GRAIN SIZE	> 35 mm /< 300 mm