

# A NEW ERA IN GLASS RECYCLING

## Technology for the benefit of the circular economy

The ultimate challenge in glass recycling is to produce high-quality glass that meets the criteria of the conditioners and recyclers that process it for commercial applications.

In North America, standard sorting centre equipment produces glass that contains up to 20% impurities (labels, corks, metal, etc.), leading to high costs and environmental impacts generated by the transport of such a significant amount of contaminants over long distances.

## TOWARD A CIRCULAR ECONOMY BASED ON RECYCLED GLASS

By investing to upgrade sorting centre equipment, ÉEQ is creating the channel that was missing between the various stakeholders in the circular economy of glass. The new equipment will enable sorting centres to produce high-quality glass that meets conditioner's criteria and improves the entire production chain.

### IN THE PAST: LOW QUALITY, HIGH COSTS

20 % CONTAMINANTS



- ✗ Transport and landfilling costs
- ✗ Additional processing needed
- ✗ CO<sub>2</sub>
- ✗ Little economic interest for conditioners to use glass from curbside recycling to give it a second life

The low quality of the glass processed by sorting centres led to economic and environmental impacts in the subsequent phases, making it difficult to use the material in new products.

#### › FOR SORTING CENTRES:

The assurance of being able to provide clean sorted glass to conditioners means more efficient operations management.

#### › FOR CONDITIONERS AND RECYCLERS:

It becomes economically viable to process higher quality glass for commercial markets.

### TODAY: HIGH-QUALITY GLASS FOR A RANGE OF APPLICATIONS

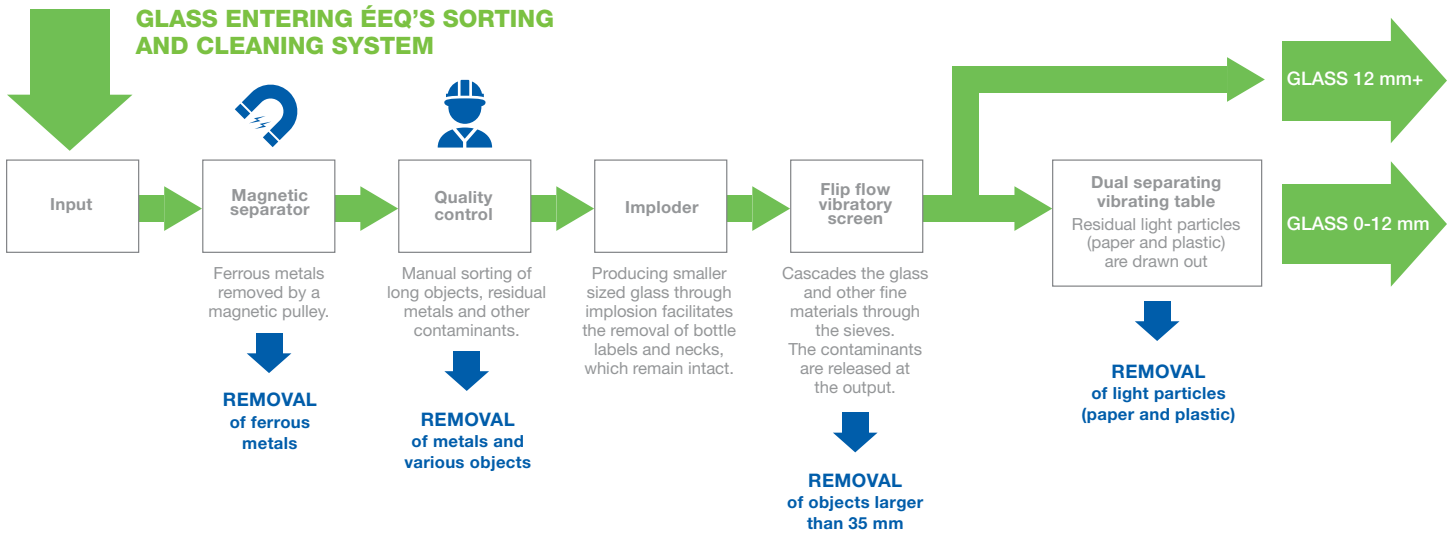
GLASS UP TO



- ✓ Up to 99% of impurities eliminated at the sorting centre
- ✓ Simpler subsequent conditioning
- ✓ Transport savings
- ✓ Reduction in CO<sub>2</sub> emissions
- ✓ Elimination of its use as landfill cover
- ✓ Two standard sharp-free grain sizes for many different commercial applications

**THE ADVANTAGES OF A CUTTING-EDGE TECHNOLOGY**

Combining the implosion technology developed by Krysteline and the related equipment installed by Machinex changes the way glass is sorted and cleaned.



For the first time in the world, a single system sorts and cleans, streamlining the processes across the production line. The new equipment produces glass in two grain sizes that conditioners and recyclers then transform for use in a range of innovative ecomaterials.

**A SECOND LIFE FOR GLASS: FROM RECYCLING BINS TO ECOMATERIALS**

After sorting and cleaning at the sorting centre, the glass may be processed by conditioners and recyclers for use in new applications.

- Abrasives for sandblasting
- Cellular glass
- Mineral wool
- Water filtration agents
- Bottle and container remelting
- Cement additives for concrete
- Ornamental and horticultural mulch
- Green paving stone
- Glass powder fillers
- Sports fields

