



Maximum yield Consistent quality

Innovative optical sorting solutions
for the candy industry

 **optimum**
SORTING



YOUR CHALLENGE

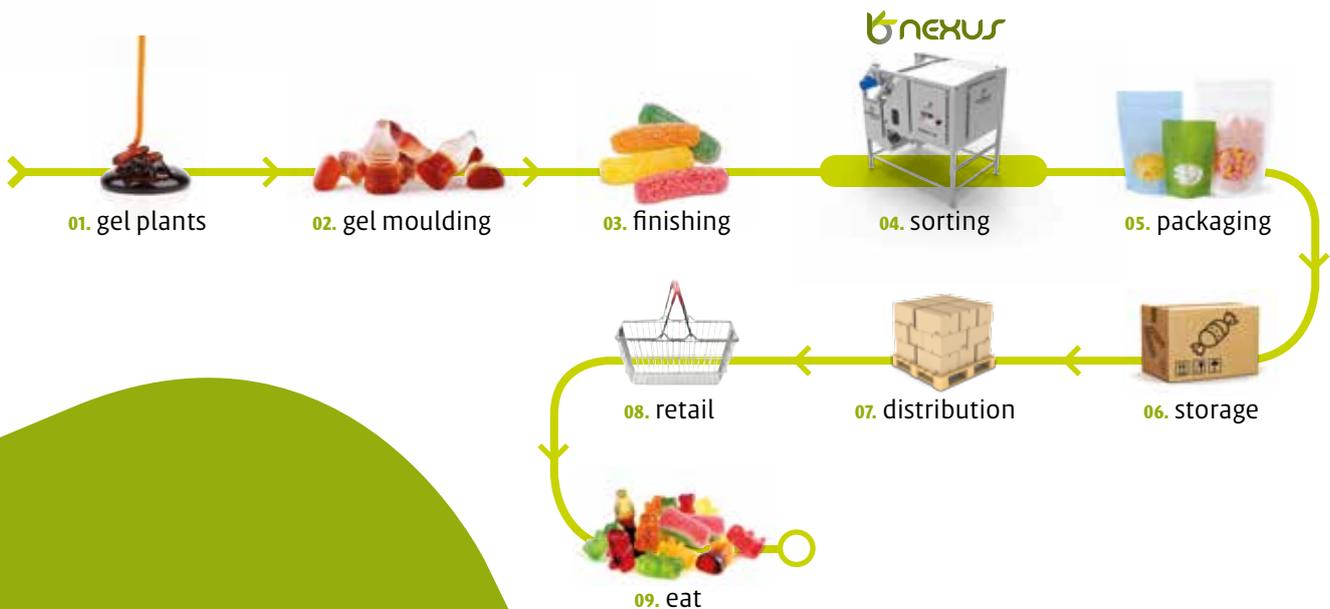
A couple of gummi bears without ears?
A stray splinter of wood in a bag of licorice?



Today more than ever before, quality problems can put your reputation at risk. After all, candy is an eminently emotional product. Consumers are not only more demanding, but also more empowered. Before you know it, negative reactions stream on to Facebook and Twitter - from dissatisfied candy lovers, from concerned parents. One destructive post is often enough to completely damage your reputation. The reach of social media is large and the Internet never forgets.

Moreover, the rules on food safety are being tightened worldwide. It's no different for candy, which is an extremely competitive market. In addition, medicines and vitamins in gums are becoming increasingly popular. And if there's one sector that places high demands on food safety and quality, it's pharmaceuticals.

So compromises on quality are out of the question, but you don't want to put your profitability at risk. In short, it is important to optimize your sorting process: detect as many foreign materials and defects as possible, without unnecessarily removing good candy.



**/// OPTIMUM SORTING:
TO DETECT AS MANY DEFECTS
AS POSSIBLE, WITHOUT
UNNECESSARILY REMOVING
GOOD PRODUCTS ///**



OUR SOLUTION

A chain is only as strong as its weakest link. You can be sure of one thing: Optimum sorting and sorting systems will never be the bottleneck in your production line.

Jelly, half foam, foam, licorice and hard candy... whatever candy you want to offer, with the NEXUS you have the ideal solution for one of the most important steps in your production process. This optical sorting machine was specially developed for the confectionery industry and with more than 70 installations worldwide, it is the most widely used optical sorter for this market.

The NEXUS uses a sophisticated combination of advanced high-resolution cameras and multidimensional image processing to accurately detect color and shape deviations. Its smart, specialized algorithms for shape recognition make it possible to accurately detect foreign objects.

Just like our other sorting systems, it easily adapts to the desired quality specifications. The controlled, vibrating feed with sieve ensures that the products to be sorted are better distributed, allowing them to be analyzed more accurately and reducing the risk of false rejections. And by using the DRS mode you can increase its defect detection and sorting accuracy even further.

You want to sort optimally - deliver the highest possible quality, but not at the expense of your yield - yes? Then choose Optimum Sorting. Guaranteed ROI!



YOUR OPERATIONAL RELIABILITY = OUR SERVICE



Integration

To integrate your solution, we rely on our network of specialized partners. After all, every production line is different and requires a tailor-made approach.



Training

We train your operators, both at your site or our offices, so that they can optimally use your sorting systems.



Remote access

Our service engineers can be reached 24/7. Thanks to secure external access, they can quickly make a remote diagnosis and, if necessary, immediately decide to intervene.



Customized SLA

A maintenance contract is actually superfluous. Our service is adapted to the needs of your organization.



NEXUS

As a freefall sorter, the NEXUS is extremely compact. It has fewer moving components than conveyor belt sorters and therefore requires even less maintenance. But above all, during their fall, products may be viewed along two opposite sides, resulting in more accurate sorting.

The NEXUS is available in different scan widths, up to 1200 mm, and is equipped with durable and energy-efficient LED lighting that produces little heat.

The controlled, vibrating feed with sieve ensures that the products to be sorted are better distributed, allowing them to be analyzed more accurately and reducing the risk of false rejections. In addition, the sieve removes any small pieces and impurities - a form of pre-sorting.

By default, the NEXUS features four advanced high-resolution color cameras and smart, specialized algorithms for shape recognition, resulting in superlative defect detection and excellent good-to-bad ratio. Two optional RGBi cameras maximize sorting accuracy.

Do you want to sort even more accurately? Then choose a scan width of 1200 mm and use the DRS sorting mode (Defect Return System mode): the rejected products are put into a re-sorting stream and inspected for a second time. Any incorrectly rejected candy may then still be accepted. The result: a naturally superior good-to-bad ratio and a higher yield.



- compact freefall sorter
- durable LED lighting
- advanced cameras
- smart algorithms
- internal re-sorting stream (DRS)
- excellent good-to-bad ratio





OPTIMUM SORTING

Multidimensional image processing

Most image processing algorithms reduce the RGB signal of a color camera from three to two dimensions, resulting in loss of valuable information. All signals are interpreted simultaneously by means of our algorithms, resulting in a more accurate detection of foreign objects and defects, plus a lower risk of erroneous rejections.

Precision ejection system

Accurate defect detection is pointless without an equally accurate ejection system. The distance between our air ducts (center-to-center) is 7.5 mm instead of the usual 10 mm. Thus there are more ducts that are able to blow more effectively, which improves the ejection accuracy. There is also a high-resolution valve system with a center-to-center distance of 5 mm for specific applications.

Data view

Why not use the data recorded by the cameras to adjust your sorting process where necessary? An optional module filters this data to parameters of your choice - length-width ratio, shape, color, defect level, etc. - and makes them available to your operators in a clear numerical or graphical way, so that they can intervene if desired. This module already provides the basis for automatic sorting to your particular specifications.

EXCEPTIONAL USER-FRIENDLINESS

Visual calibration

Setting acceptance thresholds is often time-consuming and complex. This is not the case with Optimum Sorting systems. Your operators no longer have to work with graphs or formulae themselves. Using images of acceptable and unacceptable products, our machines calibrate themselves.

Intuitive GUI

Thanks to an intuitive GUI, operating our sorting machines is child's play. Your operators see all relevant information at a glance.

Remote control

Do you want to operate your sorting machines centrally? No problem. Our solutions can easily be integrated into your network, so that your operators and supervisors can keep an eye on things from any network computer.

SUPERIOR HYGIENE AND EFFICIENCY

Optimum Sorting systems are made from stainless steel and all components to be cleaned are easily accessible. This way hygiene is guaranteed and cleaning costs hardly any time and effort. Moreover, our machines are designed in such a way that any contamination has no impact on the sorting.

Furthermore, they excel in stability, which means that your sorting process requires virtually no manual intervention. With one press of a button, you can switch from one product to another or from one specification to another. And finally, their sturdy construction offers you a maximum uptime with minimum maintenance.



MODULAR DESIGN

Customization is no problem! Thanks to their modular design, our sorting systems may easily be adapted to your specific requirements. Moreover, they are field-upgradable so that they can grow with the needs and opportunities of your organization, and our latest technology.



■ standard ○ option

		NEXUS
Type		freefall sorter
Application		jelly sweets
Width		1000 mm or 1200 mm
Camera	RGB	■
	RGBi	○
Vibrating feed with sieve		■
Sorting mode		DRS (only with 1200 mm)
Air valves	7,5 mm	■
	5 mm	○
Data view *		○

* : This module is being continuously developed. Contact us for an up-to-date overview of the functionalities.



More information?

OPTIMUM nv
Zolderse Kiezel 36
3511 Hasselt (Kuringen)
Belgium

T. +32 (0)11 71 80 20
info@optimum-sorting.com
www.optimum-sorting.com

