QUALITY THAT STEMS FROM TRADITION

Your specialist for cleaning technology. For nearly 100 years.
The high-performance „OPTIMA“ aspirator

is suitable for multi-grade operation without screen change and is tested with a variety of cereals and legumes. In this regard a capacity of up to 160 t/h can be achieved. The OPTIMA is used for scalping and main cleaning of virtually all cereals and can be also implemented universally for seed cleaning. Also treatment of “problem crops” like maize, peas, sunflower seeds, beans, etc. as well as sorting out of foreign objects is no problem for the machine.

In this regard, OPTIMA is also equipped for the harshest work conditions. In case of an uneven intake, the machine automatically regulates the capacity in the air separating chamber. Internally, distribution devices ensure optimal utilization of the entire machine width. For wet goods and oleaginous fruit, the screen bypass enables tasks with only the air separator and scalping screens, and thus prevents adhesion on the screen frame.

Rubber balls keep the screen pores open at all times, ensuring passage. In addition, the progressive wear-resistant lining from stainless steel and plastic results in a significantly extended service life.

**At a glance**

- light fraction separation and size classification
- exact sorting of mixed grain into three sizes
- precise removal of dust and lightweight particles
- preparation of various kinds of grain without changing the screen
- very compact, low-maintenance design
- high performance, up to 160 t/h
- long-term optimization of operating costs
**Technical data**

**Inflow distribution**
Distributor screw (Ø 300 mm)

**Feed regulation**
Flow regulation controlled via fill level

**Aspiration air**
Approx. 15-20% exhaust air to the filter system or to the post separator

**Adjustment parameters**
Aspiration air quantity, aspiration air direction for optimal effect, bypass flap for bypassing the main screen and secondary screens

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Capacity t/h*</th>
<th>Length mm</th>
<th>Width mm</th>
<th>Inflow height mm</th>
<th>Scalpers m²</th>
<th>Main screens m²</th>
<th>Secondary screens m²</th>
<th>Weight kg</th>
<th>Drive power kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optima 2001/15</td>
<td>80</td>
<td>1.860</td>
<td>2.740</td>
<td>3.874</td>
<td>3.2</td>
<td>6.4</td>
<td>3.2</td>
<td>1.700</td>
<td>14</td>
</tr>
</tbody>
</table>

*All capacity information is based on a bulk weight of 0.75 t/m³*
1 Exhaust air
2 Circulating air fan
3 Product infeed
4 Distributor screw
5 Air flow regulation
6 Inflow regulation
7 Circulating air duct
8 Air guidance flap
9 Waste
10 Grading discharge
11 Bypass flap
12 Scalpers
13 Main screens
14 Secondary screens
15 Discharge good product
16 Discharge 2nd sort
17 Discharge small grain
The VORTEX bulk goods cleaner

is the logical consequence of the demand for preparing bulk goods efficiently and effectively in such a manner that fast additional steps can be realized in the processing chain. For cereals this mainly concerns placement in storage, preparation for drying, and quality improvement when removing from storage. The VORTEX is an air separator combining important sorting components in a single machine with a minimal spatial requirements and achieves a throughput capacity of up to 250 t/h. You will not find maintenance-free rotational distribution of bulk solids with the ingenious and simple ring gap air sifter geometry and the effective compact dust separator fan combination (recirculation separator) in this space-saving, cylindrical design in other solutions. This results in an essential advantage: The VORTEX can be quickly and cost-effectively integrated in existing plants.

At a glance

- excellent cleaning performance
- throughput capacity 80 – 250 t/h
- compact design, minimal space requirement
- environmentally friendly thanks to air circulation technology
- easy operation (also via remote control)
- excellent price-performance ratio
- wear-resistant liner in the inflow area
- minimal exhaust air volume
- maintenance-friendly thanks to segmented design
- wear-resistant liner in the discharge area (option)
- large inspection window (option)
Technical data

Inflow distribution: Rotating spreading disc
Infeed regulation: None, via charging rate
Aspiration exhaust air: Approx. 15-20% exhaust air to the filter system or to the post separator
Adjustment parameters: Return air regulation, air circulation rate via local or remote adjustment

<table>
<thead>
<tr>
<th>Vortex Type designation</th>
<th>80</th>
<th>120</th>
<th>160</th>
<th>250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughput capacity m³/h/t/h</td>
<td>90-107/68-80</td>
<td>130-160/100-120</td>
<td>190-214/143-160</td>
<td>240-333/180-250</td>
</tr>
<tr>
<td>Aspiration Air capacity m³/h</td>
<td>6.400</td>
<td>9.600</td>
<td>12.800</td>
<td>16.000</td>
</tr>
<tr>
<td>Drive power Circulating air separator kW</td>
<td>4.00</td>
<td>7.50</td>
<td>11.00</td>
<td>11.00</td>
</tr>
<tr>
<td>Drive power Spreading disc kW</td>
<td>0.37</td>
<td>0.55</td>
<td>0.75</td>
<td>1.10</td>
</tr>
<tr>
<td>Overall height mm</td>
<td>2.702</td>
<td>3.176</td>
<td>3.608</td>
<td>4.409</td>
</tr>
<tr>
<td>Diameter, outer mm</td>
<td>966</td>
<td>1.222</td>
<td>1.516</td>
<td>1.924</td>
</tr>
<tr>
<td>Inflow diameter mm (VR)</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>Outflow diameter mm (VR)</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>Approx. weight kg</td>
<td>820</td>
<td>930</td>
<td>1.720</td>
<td>3.400</td>
</tr>
</tbody>
</table>

All capacity information is based on a bulk weight of 0.75 t/m³
1 Fan drive motor
2 Circulating air fan
3 Circulating air
4 Exhaust air incl. extracted dust
5 Air flow regulation
6 Distributor drive gear motor
7 Inflow product
8 Dust-air mixture
9 Rotation distributor (spreading disc)
10 Discharge clean goods

VORTEX flow diagram
**Planning, production, assembly and maintenance – all from a single source.**

With us, you always have a project manager responsible for you, who will be your personal contact from the planning to the completion of your project.

You get a system that is all of a piece. Our highly skilled employees do the planning on a 3-D CAD system at the most modern CAD workstations. So you can see in detail even before the ground-breaking how your system is going to look. By using 3-D design, we prevent planning errors which cannot be immediately detected in complex 2-D designs.

A modern materials management system ensures that all the parts required for your order go into production with the right properties, in the required quantities and at the right time. The system provides immediate information at any time on the current status of your order.

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**Even after the assembly of your system, we will still be there for you.**

**EMERGENCY SERVICE**

Even outside our normal business hours, you can always reach a contact person who will help you solve your problem. During grain harvest time, we set up a 24-hour emergency service which guarantees immediate troubleshooting. If it should prove necessary, we can put a customer service technician at your disposal at any time. Thanks to our location in the immediate vicinity of Hamburg Airport, a specialist can soon be on site even abroad.

**SPARE PARTS DELIVERY SERVICE**

Even the best component has to be replaced sometime. To make sure that the downtimes of your system are as short as possible, we keep a large portion of the required spare and wear parts in stock at our central warehouse. Selected logistic partners take over the transport so you get your parts safely and on time, even if it means immediately sending the part by courier.

**MODIFYING YOUR SYSTEM AND ENHANCING ITS PERFORMANCE**

Even if your company is expanding and the system that was supplied is stretched to its limits, we will be at your service with the expertise we have gained in nearly 100 years, working up solutions to modify or enhance the performance of your system. So you see, we will still be your partner tomorrow.
We put great value on returning customers – not returned products.

Our most important value is to ensure that our products and services are of high quality. We achieve this with our QM system, based on a large number of ongoing inspection plans. These plans are not used at the end of a process, but rather accompany it from design to production up to assembly.

Thus we ensure that faults are identified at an early stage of the process and helps avoiding expensive reworking. The way we select and constantly assess our suppliers also helps us guarantee high quality and nearly faultless production.
The right solution for every requirement

As has been shown in the past, enterprises with a long tradition are particularly well suited to meeting challenges like ongoing further development of design and manufacture. ZUTHER can draw on expertise gained in nearly one hundred years of business. Joining tradition and forward-looking technology with perfectly trained personnel is a determining factor in the daily activities of our enterprise. Principles such as partnership, quality, efficiency, innovation, and sustainability were already pronounced back then and will be considered self-evident in the future, as well.

Decades of practical experience and the close cooperation with our customers have enabled cleaning technology from ZUTHER to reach a whole new level of performance capability, efficiency, and ease of maintenance.

Quality that origins from tradition.
Your specialist for cleaning technology.
For nearly 100 years.

Fig.: AS 20 timber cleaner, year of manufacture 1953