

Exceptionally compact food processing with ROSTA oscillating elements!

Much of the industrially produced food requires a resting, drying, or hardening phase for the subsequent confectioning or packaging after the first preparation phase. For example, freshly formed (extruded) pasta, such as elbows, spirals, shells, hollow noodles, and gnocchi are normally sent along a woven wire belt through a long drying oven to stabilize their very complicated shapes.

Up to 25 meters long and very expensively heated "monsters" are therefore standing around and taking up a lot of room in the production facilities of many of the pasta manufacturers.

Based on an idea of one of Italy's pasta producers, ROSTA AG developed an oscillating element system for the conception of very compact drying ovens – the **oscillating crosses** (illustration 1). With this system, the freshly shaped pasta is no longer sent down a mesh belt but rather carefully transported on the oven's



Illustration 1

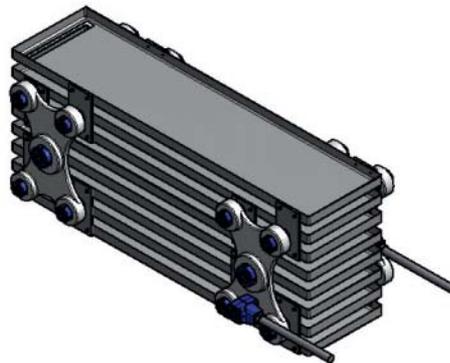
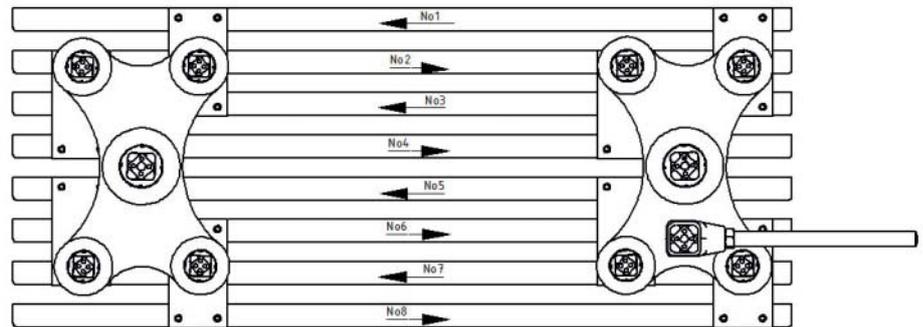


Illustration 2



air-permeable oscillating conveyors. The fresh pasta go through up to **8 oscillating conveyors arranged above each other while changing direction**, gliding from frame to frame through the drying oven. A drying oven only 6 meters long with 8 oscillating conveyor frames thus provides a **48-meter long drying distance** for the conveyed material. Illustration 2 shows the concept of this compact oscillating system. The oscillating elements at the branch ends of the cross are connected with the even or uneven (see the numbering) oscillating conveyors respectively. Depending on the resulting angle of the guides to the midpoint of the cross, this channel moves the conveyed material from right to left or left to right. The gnocchi or shells gently slide to the next oscillating frame at the end of the belt and have completed a

48-meter long "processing trip" when they exit stabilized and ready for **direct packaging**. Naturally, this oscillating system works in a well-insulated and heated machine case and is set in motion by an external slider crank drive.

This ingenious and space-saving oscillator concept lowers heating costs, drastically reduces the necessary processing space, and also sifts out all of the pasta breakage.

SQR Gyrotory sifter from s.com



Illustration 1

The company **s.com S.r.l.** primarily constructs and manufactures machines and equipment used for the preparation of food. This firm, which marks its 50th year of operations in 2012, is largely active in machines for the milling industry, where it is known for high-quality processing equipment. In the interest of continued performance improvements and a simultaneous increase in the operating safety of its machines, **s.com** has been collaborating closely with ROSTA S.r.l. IT-Milan on corresponding design improvements in a range of sifting machines in recent years.

A highly successful reconceived machine is the **"Monocassa"** plansifter, which is suspended by ROSTA type AV oscillating mountings (illustration 1). These machines are used to sift flour, pasta, wheat

semolina, fodder and also chemical powders in order to sort out unwanted foreign matter and for process-appropriate granulometry of the grain sizes.

In addition to the **"SQA-suspended"** machine type, where the ROSTA AV-18 oscillating mountings have been used successfully for some time (since 1998) and where the operational safety of these hanging sifters could be decisively improved, these mountings are also being used in the more complex successor model, the **"SQA-central drive"**.

Depending on the construction, weight and number of fraction sieves, the type **AV 18** or **AV 27** oscillating mountings are used to suspend the sieve boxes made of special wood (illustration 2). The circular-horizontal oscillations of the box are generated by a centrally arranged, belt-driven eccentric weight, which produces the desired sifting movement. Before the use of the standardized ROSTA oscillating elements, the sifting box was suspended at each corner by a complicated arrangement of fiberglass rods, which were screwed to the box and supporting frame using two-piece collar

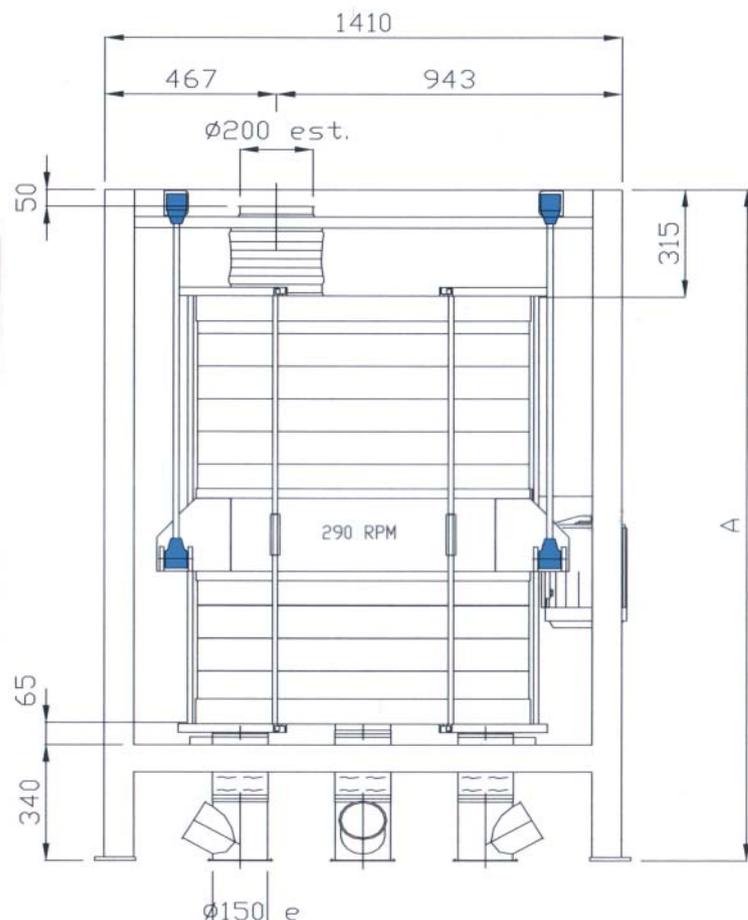


Illustration 2



ROSTA Oscillating Mounting type AV

clamps – this friction was insufficient in humid conditions, which allowed the very smooth fiberglass rods to slip in the collar clamps; as a consequence, steel safety cables were integrated to prevent the sifting box from falling. The left and right-threaded ROSTA AV oscillating elements make possible an easy and very fast alignment and hanging of the box with only one suspending mount per corner. The assembly time for the plansifter was reduced by 75% and the danger of slippage was eliminated entirely – **interruptions, downtime, and accident risks are now things of the past!**

s.com S.r.l. sells its equipment worldwide and for some time has been looking for a reliable components supplier, which could also offer spare parts availability on all continents in addition to long lifecycles and operational safety. By collaborating with ROSTA, the manufacturer was able to completely fulfill both expectations.



An American Sifter Manufacturer also Specifies ROSTA AVs!

SWECO, a well-known manufacturer of screening machines based in Florence, Kentucky, began specifying ROSTA type AV 50 oscillating elements to support its suspending gyratory last two years ago. Originally, SWECO mounted the nearly 5500 kg screen boxes on four truck driveshafts. The eight universal joints on the four suspension mounts had to be exchanged almost every six months by 24-hour operation because of insufficient lubrication and one-sided wear on the bearing bushings.

Exchanging the universal joints and the difficult re-leveling of the sifting box required two SWECO service technicians and several hours each time. Furthermore, the entire installation, including the downstream machines, was unproductive for hours. The manufacturer therefore wanted to comprehensively improve its gyratory sifters with regard to operational reliability and decided to use ROSTA AV oscillating elements.

Through the use of the right and left-threaded ROSTA AVs suspensions, the

assembly and re-leveling of the sifting boxes is much simpler and time-efficient. In addition, no evidence of wear has been found on the four sifting machines, which have been in 24-hour fine-sand prepar-

ation operation for two years. The operational reliability of the SWECO sifters has been decisively increased through the use of ROSTA oscillating elements.



ROSTA has exhibited at the ACHEMA 2012 show in DE-Frankfurt!



Illustration 1

The continually growing demand for ROSTA oscillating elements for mechanical sorting and sifting equipment used in chemical processing technology led to our decision to take part as an exhibitor in the triennial ACHEMA trade fair for chemical equipment in Frankfurt, Germany, in 2012. In our 50 m² exhibition booth in Hall 6.0 (sector: **plant engineering "mechanical processing"**), we presented all of our ROSTA mounting components for plan sifters, rotex, gyrating, linear, and flip-flow screens using six impressive demonstration machines (illustration 1).

The ROSTA booth was well received by the many visitors during the five days of

the fair (June 18–22), and our self-explanatory exhibits drew over 600 visitors, which was a very positive surprise for us as first-time exhibitors. One highlight generated a great deal of interest: a new demonstration **coil conveyor with coupled discharge feeder** (illustration 2). Also, our old tried-and-true fun machine, the vibration stairs, was once again a real magnet for visitors, who stood in line for the impressive feeling of ROSTA-dampened vibrations.

The international mix of our booth visitors also amazed us. Only 40 % of the contacts came from German-speaking areas. Most of our contacts at this trade fair came from the United States, England, Scandinavia, China, Japan, and South America.

In 2015, our products will once again be on exhibit at the very international and popular ACHEMA. Until now, our screen mounts were primarily used in industrial sectors of mineral processing. But we are now convinced that a great deal of potential for our oscillating elements is present in the machines used in chemical processing technology.



Illustration 2

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