



SEPARATION

**MAXIMUM EFFICIENCY  
IN STARCH DEWATERING**

KRAUSS-MAFFEI  
PEELER CENTRIFUGE HZ

**ANDRITZ**

ENGINEERED SUCCESS

# Krauss-Maffei peeler centrifuge HZ – maximum efficiency in starch dewatering

Starch – a key source of carbohydrate – plays a vital role not only in the food industry, but especially in the pharmaceutical, chemical, and paper industries. With its peeler centrifuge, ANDRITZ makes sure that you obtain the maximum possible out of your starch source and at the same time optimize your production. Excellence in reliability, consistent throughput, and performance all contribute to ensuring your peace of mind.

Corn, tapioca, wheat, potato, rice, native or modified starch – whatever the type of starch you might produce, our peeler centrifuge makes sure you extract the maximum possible. Decades of experience in the starch centrifuge business enable us to serve you with proven technology that stands the test of time.

Krauss-Maffei peeler centrifuges HZ are batch-operated filtration centrifuges known for their reliable performance at high capacities. Engineered and manufactured to fulfill highest quality standards, they are a benchmark. Serving the starch industry successfully since 1949 with more than 400 units sold, we are well aware of the requirements in the starch production process. That is why we are constantly innovating and optimizing our machines to tackle your production challenges. The decades of experience and constant innovation lead to durable designs, reliable performance parameters, a broad range of available sizes, and an array of optional features to cover your individual needs.



Krauss-Maffei peeler centrifuge HZ for starch application

## SPECIAL STARCH FEATURES

- Second feed pipe: to facilitate floating protein separation
- Door skimming pipe: to extract supernatant liquid with protein
- Auto CIP cleaning: to conform with food grade regulations

## APPLICATIONS

- Corn
- Tapioca
- Wheat
- Potatoes
- Rice

## PROCESSING PARAMETERS

Feed solids concentration	>20° Be
Max. throughput/machine	15 MT/h
Min. residual moisture	33% wt./wt.

“Working for many years with ANDRITZ’s siphon peeler centrifuges, we see that these machines are reliable and capable of handling a wide variety of difficult-to-dewater products.”

## PIM VAN DER GRAAF

Process development leader  
for Starch & Dextrins, Cargill

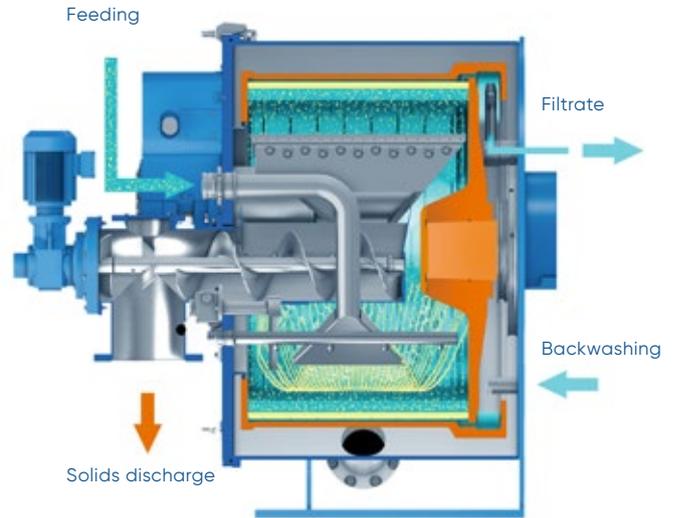


**BASKET DESIGN**

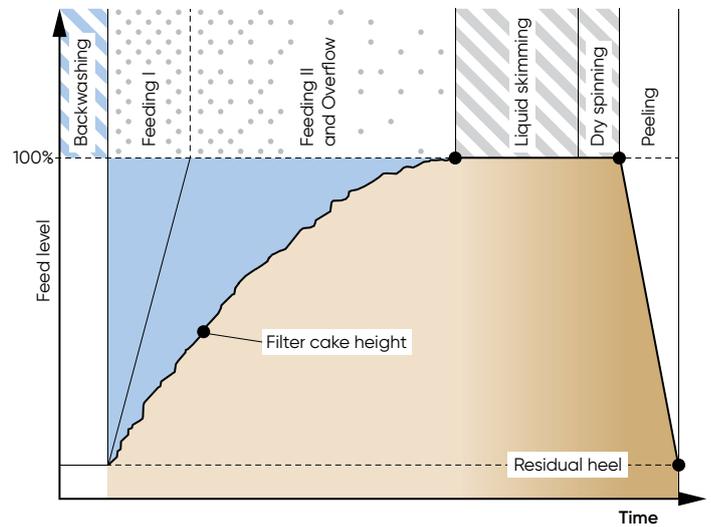
Unlike the conventional perforated basket, the rotary siphon basket has a solid cylindrical shell with filtrate bores arranged radially at the rear end of the basket, where they are connected to a siphon-shaped chamber. Once the filtrate has penetrated the filter cake and the filter medium, it is redirected into the siphon chamber, where a pivoting skimmer pipe extracts it from the centrifuge. With the siphon design, the filtration rate is improved and backwashing is enabled, which increases both the capacity and the flexibility of the peeler centrifuge.

**OPERATING PRINCIPLE**

- Backwashing with mother liquid (or fresh water) to re-suspend the compressed residual heel and restore its permeability. Additionally, the liquid pool created by backwashing on top of the heel will help to distribute the subsequent cycle's incoming suspension evenly and virtually eliminate the potential for imbalance during the feed step.
- Feeding the slurry into the basket with two feed pipes, monitored and regulated by a feed controller. The second feed pipe creates a certain overflow to utilize the whole volume of the basket and remove protein and fine fibers at the same time.
- Liquid skimming to remove the remaining mother liquor above the starch cake, which contains protein and fine fibers.
- Dry spinning at high g-forces to reduce the residual moisture to 33%.
- Cake discharge with a large peeler knife at full basket speed and adjustable swivel velocity. The peeled starch is discharged from the centrifuge gently via a screw conveyor.



Rotary siphon basket design - feeding step



Operating steps

**YOUR BENEFITS**

- Siphon design ensures a constant, low level of residual moisture
- Minimum starch losses in the process ensure high capacities
- Low energy consumption due to constant rotational speed
- Gentle peeling for minimized particle breakage
- Reliable emergency system in case of power shutdown
- Highly efficient, automatic CIP cleaning procedure for hygienic production
- Worldwide service network with experienced field-service engineers

“We use Krauss-Maffei peeler centrifuges in our tapioca starch production plant, where reliability and availability with competent commissioning are a ‘must’. We are very pleased with the overall customer experience.”

**THIDARAT RODANANT**

Managing director  
Sanguan Wongse Industries Ltd.



# High throughput at a small footprint: Achieve best efficiency with the HZ\* 200

As a reliable partner for starch producers around the globe, ANDRITZ is always looking for new ways of making its customers' business more efficient by increasing yield and minimizing lifecycle costs.

The Krauss-Maffei peeler centrifuge HZ 200 has been designed with utmost efficiency in mind: Compared to the HZ\* 180, it requires only 2% more space for the foundation plate, but offers a 27% larger filter area and a 40% higher basket volume, achieving a significantly higher throughput than any other comparable peeler centrifuge. This enables you to meet the rising demands of the starch industry and achieve higher production capacities with fewer machines.



Sounds like just the solution you've been looking for?

**Ask your separation specialist!**

## Technical data

Model	Basket inside diameter [mm]	Basket length [mm]	Basket volume [l]	Filter area [m <sup>2</sup> ]	Max. g-force** [-]	Max. speed [rpm]**	Weight ***/***
HZ* 125/2.5 Si	1,250	630	323.6	2.46	1,030	1,220	5,500/15,000
HZ* 125/3.2 Si	1,250	800	410.9	3.14	1,030	1,220	7,000/19,000
HZ* 160/4.0 Si	1,600	800	683.6	4.02	805	950	10,000/31,000
HZ* 160/5.0 Si	1,600	1,000	854.6	5.03	805	950	13,000/36,000
HZ* 180/7.1 Si	1,800	1,250	1,350	7.07	710	840	23,500/55,700
HZ* 200/9.0 Si	2,000	1,430	1,965	9.00	680	780	28,000/70,000

All information is subject to change.

\* Krauss-Maffei peeler centrifuge HZ

\*\* The speeds stated are standard speeds and can be adjusted to your process requirements.

\*\*\*/\*\*\* without motor/with inertia block and drive



# Intelligence for machine and process control

With Metris addIQ, you have a well-proven, intelligent control solution for industrial processes and machines. Our solid/liquid separation specialists use their in-depth expertise to provide scalable solutions that are individually tailored to regional and application requirements. Whether you're automating new equipment or upgrading to extend the lifecycle of existing systems, we find the ideal solution for you.

## **METRIS addIQ CONTROL SYSTEMS**

Our tailored turnkey systems from a single supplier can improve entire plants or individual machines. By providing state-of-the-art automation technologies and digitalization, we ensure best-in-class performance. Automating machine and plant equipment measurably reduces gaps in many different production process steps. By using automation from ANDRITZ, you can reduce downtime thanks to features such as predictive analysis that allow you to optimize productivity.

Metris addIQ covers all levels of automation, starting at basic automation (machine, process, and plant control), to upgrades, and add-ons for process optimization. Together, you have a full range of optimized solutions that help reduce maintenance efforts and ensure preventive service for your machines and plants. These are all delivered from a single source and always individually tailored to your business demands. addIQ control systems are part of Metris, the ANDRITZ brand for digital solutions.



**Metris**  
ANDRITZ Digital Solutions



ANDRITZ offers a broad and constantly growing range of innovative products and services in the industrial digitalization sector under the brand name Metris, helping customers to enhance plant efficiency and profitability, optimize the use of resources, achieve constant and highest product quality, reduce production downtime, and maximize user-friendliness.



# Put our 150 years of OEM experience to work for you

Need to optimize your process? Boost availability? Ensure non-stop productivity? When you work with ANDRITZ, you gain access to one of the world's largest OEM manufacturers for solid/liquid separation. Put our in-depth knowledge of separation equipment and processing to work for you.

## VAST EXPERIENCE THROUGH LARGE INSTALLED BASE

With an installed global base of more than 55,000 solid/liquid separation machines and systems, you can imagine that we take service seriously. Wherever these customers are located, we work very closely with them to maximize uptime and boost efficiency.

## WELL-KNOWN OEM BRANDS

Some customers know us as the people with ANDRITZ on our overalls. Others have come to understand that we are the OEM behind former brand names like 3Sys Technologies, Bird, Delkor Capital Equipment (Pty) Ltd., Escher Wyss dryers, Frautech, Guinard Centrifugation, KHD Humboldt Wedag, Krauss-Maffei centrifuges, dryers, and filters, Lenser, Netzsch Filtration, Rittershaus & Blecher, Royal GMF Gouda, Sprout Bauer, and Vandebroek – all companies that have been acquired by ANDRITZ. But frankly, we are capable of servicing and supplying spare parts for nearly all brands of solid/liquid separation equipment on the market.

## LOCAL SUPPORT BACKED BY GLOBAL EXPERTISE

Our service philosophy is simple: One phone call, one contact person, one dedicated team that speaks your language and knows your equipment and process. This is not an empty promise. It is backed by a network of 550 service specialists for separation equipment and systems as well as service centers all around the world.

## A TRUE FULL-SERVICE PROVIDER

Whether you need spare parts, rentals, local service, repairs, upgrades, or modernization of your equipment, ANDRITZ is your service specialist in all aspects of separation. From initial consulting through to service agreements, process optimization, and training programs, we are always looking for ways to minimize downtime and increase predictability in operations while raising your overall production efficiency. In short, we've got you covered.



### LOCAL SUPPORT

Responsive local service centers and field service technicians



### REPAIRS & UPGRADES

Optimization of machine and process performance, repair work, retrofitting, and modernization



### LAB AND ON-SITE TESTS

Lab and testing capabilities for process optimization and machine upgrades



### TRAINING

Operator training and tailored seminars for operating and maintenance personnel



### OEM SPARE PARTS

Filter cloths, spare and wear parts from OEMs or with OEM level quality, all readily available



### SERVICE AGREEMENTS

Preventive maintenance, contracts for spare parts, maintenance, inspections, repairs, upgrades, operation, and equipment monitoring



### PROCESS OPTIMIZATION

Automation tools and process expertise to boost your profit



### SECOND-HAND & RENTALS

Certified second-hand and rental machines





## WHAT'S YOUR SEPARATION CHALLENGE?

ANDRITZ Separation is the world's leading separation specialist with the broadest technology portfolio and more than 2,000 specialists in 40 countries. For more than 150 years, we have been a driving force in the evolution of separation solutions and services for industries ranging from environment to food, chemicals, and mining & minerals. As the OEM for many of the world's leading brands, we have the solutions and services to transform your business to meet tomorrow's changing demands – wherever you are and whatever your separation challenge. **Ask your separation specialist!**

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