



ADVANCED EXTRUSION TECHNOLOGY

FOR PET FOOD PRODUCTION



ANDRITZ

Your challenges are real...

In the pet food industry, producers face growing pressure to deliver high-quality, safe, and consistent products – all while managing rising costs, evolving ingredients, and strict regulations.

Common issues many producers face:

- **Product inconsistency**

Variability in kibble size, shape, moisture, and texture across batches

- **Stringent hygiene demands**

Food-grade compliance and safety regulations are tightening

- **Frequent changeovers**

Switching between recipes and formats leads to long cleaning times

- **Limited flexibility**

Equipment struggles to handle a variety of ingredients and formulations

- **Low process visibility**

Operators lack access to real-time data for quality control

- **Resource inefficiency**

High energy, steam, and water usage drive up operating costs

These aren't just technical problems—they're business risks. And ignoring them comes at a price: lost time, lost output, and lost trust.





... Our solutions are proven

At ANDRITZ, we build extrusion systems to meet the evolving needs of pet food producers, helping them maintain quality, adapt recipes, and improve efficiency while complying with the highest food safety standards.

Here's how we solve what matters:

- **Reliable consistency**

Our extrusion systems manage energy, moisture, and material flow with precision, delivering uniform quality across products and recipes.

- **Safe & hygiene design**

With operator-friendly layouts, easy access, and safety-focused features, our extruders help you meet hygiene standards without added downtime.

- **Built-in flexibility**

Our patented systems such as DENSIFLEX* are designed to adapt to your needs, improve performance, and make changeovers easier.

- **Smart automation**

Integrated digital tools and control systems give you real-time visibility, recipe control, and data tracking, making the process more predictable and less stressful.

- **Efficiency you can measure**

Optimized energy and steam use means lower operating costs and more sustainable production over time.

ANDRITZ pet food extrusion systems are engineered for everyday performance in real production environments—so you can focus on delivering products pets love and owners' trust

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The advanced single-screw and twin-screw extrusion technology

ANDRITZ extruders provide the latest technology for production of the most demanding extrudates in the pet food industries.

ANDRITZ SINGLE-SCREW EXTRUDERS

The ANDRITZ single-screw extruder represents state-of-the-art technology, ensuring unique quality food at minimum operating costs. The optimized extrusion concept for unmatched performance consists of controlled feeding of dry ingredients, optimum conditioning with steam and liquid addition, an even flow rate to the extruder, and high extrusion flexibility and controllability.

ANDRITZ TWIN-SCREW EXTRUDER

The twin screw extruder is the ideal solution for the extrusion of pet food with high inclusion rates of meat slurries or fresh meat.

The twin screw extruder ensures complete utilization of starch; allowing for higher flexibility in the formulation and enabling a higher food conversion ratio.

The high-shear, co-rotating, twin screws ensure complete material discharge, and there is no residue in the barrel after production. These factors allow for rapid change over to the next recipe.

Each model is supported with application engineering to match the optimal machine to your raw materials, product targets, and capacity demands.



EXTRUDER RANGE

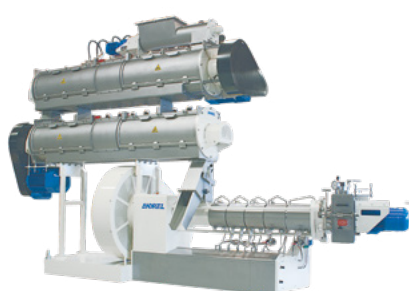
Model	Type	Screw Diameter	Motor (kW)	Capacity (tph)
EX0618	Single-screw	177 mm	200	1–4
EX0621	Single-screw	210 mm	315	3–7
EX1021	Single-screw	210 mm	315	4–11
EX1250	Single-screw	250 mm	710	10–20
EXMAX S1021	Single-screw	210 mm	315	3–9
EXTS616	Twin-screw	2x158 mm	500	8–12
EXTS718	Twin-screw	2x176 mm	710	10–18



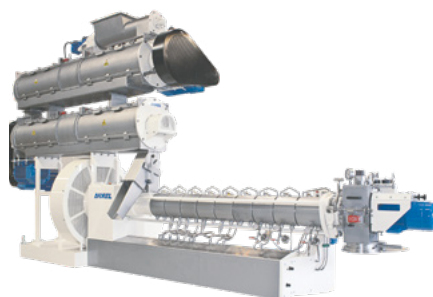
Extruder EX0618



Extruder EX0621



Extruder EX1021



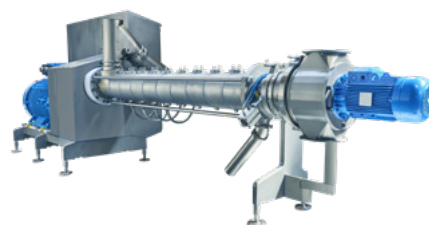
Extruder EX1250



Extruder EXTS616 & EXTS718



Extruder ExMax S1021



FEATURES

Type	EX0618	EX0621	EX1021	EX1250	EXTS616	EXTS718	EXS1021
Transmission	belt	belt	belt	gear	gear	gear	gear
Bolt barrels	-	-	-	x	x	x	x
Screws	pinned	pinned	pinned	pinned	spline	spline	spline
Water cooling or heating jackets	x	x	x	x	x	x	x
Liquid injection points	x	x	x	x	x	x	x
Screw pushout	-	-	-	-	x	x	x
Dual and single conditioner	x	x	x	x	x	x	x
Flextex © Starch cooking control	x	x	x	x	x	x	x
ECS © Density control	x	x	x	x	x	x	x
Microfeed system	-	-	x	x	x	x	x
ECMS Extrusion control management system	x	x	x	x	x	x	x
High moisture of meat slurries	-	-	-	-	x	x	x
Complete discharge	-	-	-	-	x	x	x

Best practices in extrusion. Designed into every ANDRITZ system.

1 LOSS IN WEIGHT SYSTEM

- Ensures accurate dosing regardless of changes in raw material density or additive content.

2 PRE-CONDITIONING UNIT

- Single or dual conditioners with up to 400 seconds retention time.
- High-efficiency retention and mixing, tailored to product need. Enables optimal starch cooking.

3 FORCED FEEDER

- Maintains consistent flow between conditioner and extruder while preventing blockages.

4 DRIVE

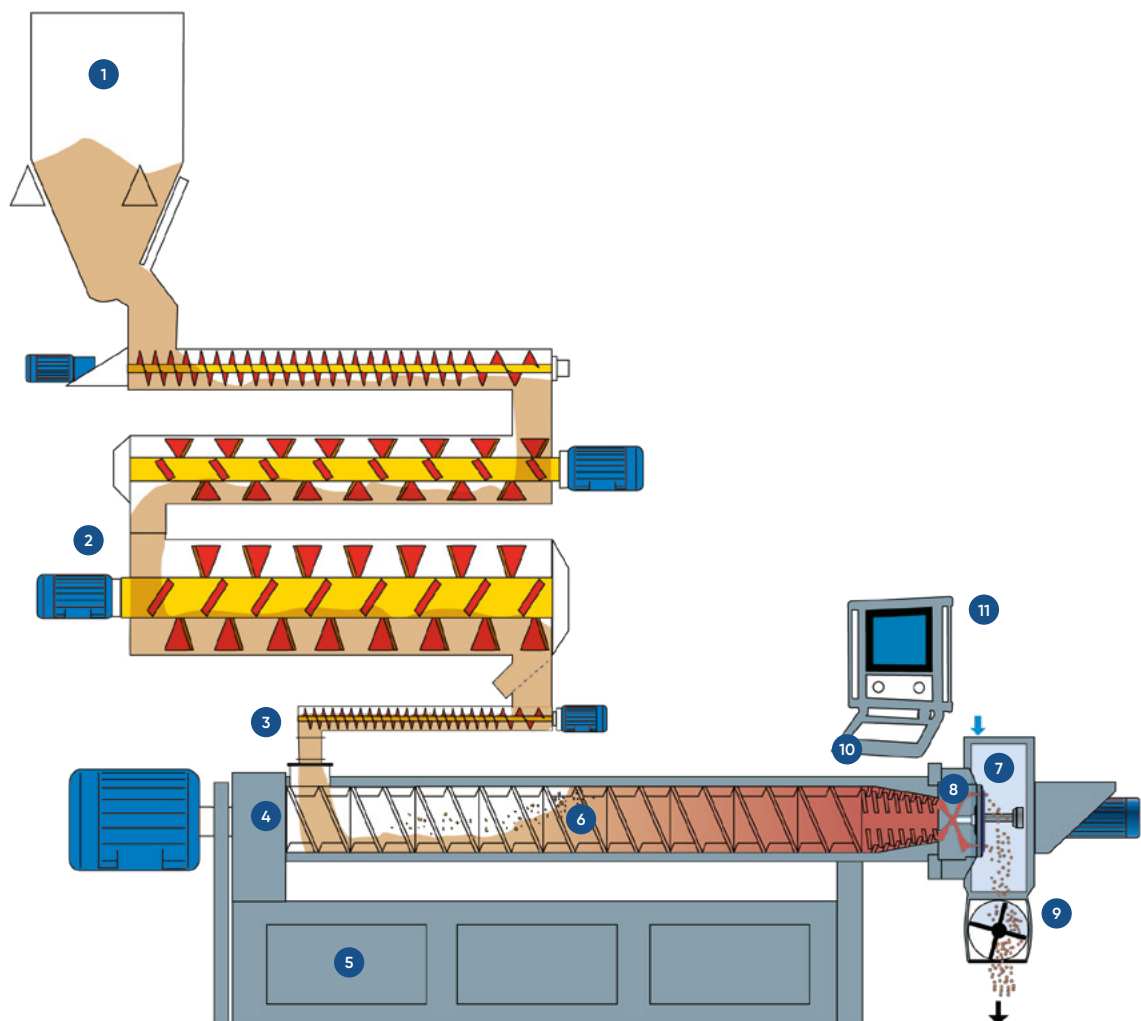
- High-torque options for precise SME control. Available in gear, belt, or direct-drive configurations ensuring even higher efficiency.

5 EXTRUDER CHASSIS

- Integrated steam and liquid systems with hygienic cabinet design for easy access and cleaning.

6 SEGMENTED SCREW AND BARREL

- Quick reconfiguration and maintenance with minimum downtime.



ANDRITZ offers a range of patented and proven add-ons that improve output, reduce downtime, and boost control

7 KNIFE HOUSING

- Fast, safe access to replace blades. Easy-to-use and standardized for service simplicity.

8 FLEXTEX™

- Online control of starch cooking and product expansion. Reduces formulations costs and helps fine-tune texture and density.

9 EC - EXPANSION CONTROL SYSTEM

- Online control of product density. Ensures 100% sinking feed and increases extruder output by up to 50%.

10 MICROFEED SYSTEM

- Specifically designed for producing small-diameter pellets (down to 2 mm). Improves capacity by up to 40%.

11 EXTRUDER CONTROL SYSTEM

- Fully automated with real-time monitoring. Enhances traceability, repeatability, and operator support.



Innovations that set **ANDRITZ** extrusion apart

DENSIFLEX*

BUILT-IN PERFORMANCE FOR PET FOOD

The patented Densiflex system ensures safe pressure release when opening the extruder and automatically adjusts starch cooking and expansion based on your recipe. This delivers consistent product quality, improves operator safety, and reduces manual handling—resulting in smoother, more efficient production with less waste.

BENEFITS

- Ensures consistent kibble quality
- Handles complex raw materials (e.g., slurry, high oil) with ease
- Enables safer, faster maintenance with instant pressure release
- Includes bypass functionality for quicker restarts and reprocessing
- Extends die plate lifetime

In a demanding market with flexibility of producing pet food, DENSIFLEX™ brings reliability and flexibility to your line.

FLEXTEX*

REAL-TIME ADJUSTMENTS. MAXIMUM EFFICIENCY.

FLEXTEX gives you real-time control over mechanical energy during extrusion without stopping production or changing screws. By adjusting pressure at the die plate, you can manage cooking, texture, and density with high precision.

BENEFITS

- Enables fine-tuning of starch gelatinization and bulk density
- Increases or reduces SME on demand
- No screw or configuration changes needed
- Reduces downtime and broadens formulation flexibility
- Helps match final product texture to customer needs

Available as an upgrade or option, FLEXTEX delivers efficiency and control in a single system.

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**Your challenges drive
our innovation.**

**Our extrusion solutions are
built to deliver performance
where it counts.**

Extrusion Control Management System

User-friendly solution, designed to monitor and control all the parts and processes in an extrusion line.

The ANDRITZ extrusion control system manages the entire line for smooth, synchronized operation. Operators get real-time data on SME, moisture, and temperature, with easy recipe management, alarms, and batch tracking. Available as a standalone panel or integrated platform, it scales to your needs and includes safety interlocks, remote diagnostics, and cloud support to keep production running reliably.



Market-proven automated control solutions trusted worldwide



OVER 300
EXTRUSION CONTROL
SYSTEMS have been
installed globally

CUSTOMERS
IN OVER 60
COUNTRIES,
enhancing their
operational efficiency
and reliability
with us

- **Unmatched Expertise:** In-depth knowledge of process automation.
- **Tested Excellence:** High-quality, industry-proven solutions.
- **Plug & Play Preconfigured Solutions:** delivering adaptable solutions for your exact needs.
- **Global Support Structure:** Prompt and effective assistance for any challenges.
- **Secure Compliance:** Upholding industry cybersecurity standards.



Effortlessly
integrates into
existing systems



Easy-to-use,
intuitive
interface



Simplifies
operations



Enhances
planning and
decision-making
capabilities

Read more about our Extrusion Control Management System here:



We're more than a service provider

As your strategic extrusion partner, we're committed to helping you succeed in a competitive market. From spare parts and repairs to process optimization and on-site expertise, we support your operation with tailored service and proven solutions that keep your line running strong.

We understand the unique challenges of the extrusion industry to ensure that the support and solutions we provide are personalized and tailored specifically for you.

Extensive expertise in machine creation and deep process knowledge makes us the top choice for wear and spare parts for both ANDRITZ machines and other brands.

We guarantee local presence wherever our customers are, providing personalized and timely local support and worldwide delivery.

We're dedicated to innovation in everything we do, from the parts to complete solutions, ensuring we bring advancements into every aspect of our work.

**360°
SERVICE
PARTNER**

WEAR PARTS SOLUTIONS

SERVICE & REPAIR

SPARE PARTS SOLUTIONS

PROCESS OPTIMIZATION



GLOBAL SUPPLIER – LOCAL PRESENCE

ANDRITZ Feed & Biofuel is truly a global organization – with local presence. We are represented all over the world. The global market is served from five main locations in Denmark, China, Netherlands, USA, and Slovakia.

In addition, ANDRITZ Feed & Biofuel operates from several strategic regional sales, engineering, and service locations in Australia, Bangladesh, Brazil, Canada, Chile, Dubai, France, Germany, India, Italy, Mexico, Poland, South Africa, Thailand, Turkey, the UK and Vietnam – and is also represented locally by agents and distributors in many other markets.

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