

Food Extrusion Workshop 2027

Innovations for a **better world.**

Givaudan BÜHLER

Food Extrusion Workshop
Protein Innovation Centre, Singapore

With emphasis on machine and process technology, this hands-on, focused workshop consists of lab sessions in Bühler & Givaudan's state-of-the-art extrusion pilot plant complemented by theory lessons.

Course content

Principles of extrusion technology

- Extrusion fundamentals
- Function of screw elements
- Effects of mechanical and thermal energy input
- Screw configuration for direct and indirect expanded food products
- Impact on raw materials

Extrusion process related equipment

- Steam addition info extruder and preconditioning as a means of thermal energy addition
- De-gassing and application of vacuum as a means of thermal energy removal
- Co-extrusion process and remote-cut technology
- Coloring and coating of extruded products
- Drying and toasting technology

Presentations of various extruded food products

- Breakfast cereals and snacks
- Dry and wet texturized plant-based proteins
- Modified flours, reconstituted rice and extruded breadcrumbs

Fundamentals of flavoring applications

- Insights on sensory science
- Pre-extrusion and post-extrusion flavor application techniques
- Culinary application of various extruded food products

With focus on demonstrations in our state-of-the-art Protein Innovation Centre, theory sessions will be held in between to provide the necessary understanding of the processes behind the extruded foods produced in each lab session.

Target Group

This workshop is intended for operation supervisors, engineering or R&D personnel, etc

Date

January 26 – 28, 2027

Language

English

Number of participants

Min. 20 participants

Location

Protein Innovation Centre, Singapore

Price

SGD 1400 (Early bird + group of 3 discount)
SGD 1450 (Early bird discount)
SGD 1600 (Standard price)
Included: Course documentation, lunches.
Excluded: Hotel accommodation, traveling and transport costs.
Early bird pricing valid until end of November 2026.

Enquiries

Contact pic.singapore@buhlergroup.com

Pet Food & Aqua Feed Workshop 2027



Innovations for a **better world.**

BÜHLER

Pet Food & Aqua Feed Workshop

Uzwil, Switzerland

A four day hands-on workshop at the Bühler extrusion pilot plant, utilizing twin-screw extrusion technology, grinding with hammer mills and covering the following subjects:

Course content

Quality influencing factors

Upstream of extrusion
- Optical sorting
- Fine grinding with hammer mills
- Preconditioning

Extrusion
- Benefits of single-screw and twin-screw extruders
- Screw configuration
- Application of SME and STE
- Process and density control

Downstream of extrusion
- Coating and vacuum coating
- Drying

Further quality influences
- Raw material and its conversion during extrusion
- Digital solutions
- Extrusion as a kill step, incl. validation

Aqua feed
- Getting water stability and bulk density right
- Floating, slow- and fast-sinking feed
- Micro and shrimp pellets

Pet food
- Dry kibbles
- Snacks and treats
- Co-extruded filled pillows
- Baked pet food
- Wet pet food

Other subjects upon specific interests of participants.

Target group

This workshop is intended for operation supervisors, engineering or R&D personnel and many more: people actively involved in technological aspects and feasibility considerations of extrusion.

Date

March 15 – 18, 2027

Number of participants

Min. 15 participants

Location

Extrusion Application Center
Bühler AG in Uzwil, Switzerland

Costs

CHF 4'700.-

Includes: course documentation, lunches, coffee during breaks, social event with dinner.
Excludes: hotel accommodation, travelling costs, transportation/transfer between airport, hotel and Bühler.

Accommodation

Pre-booked rooms are available at Hotel Uzwil at a special rate. After registering, you will receive a link to book your room.

General inquiries

Send us your questions to
vn.academy@buhlergroup.com

Registration

Open the website and fill in the contact form:

www.buhlergroup.com/pet_aqua

Pet Food & Aqua Feed Workshop 2027



Innovations for a **better world.**

BÜHLER

Pet Food & Aqua Feed Workshop

Uzwil, Switzerland

A four day hands-on workshop at the Bühler extrusion pilot plant, utilizing twin-screw extrusion technology, grinding with hammer mills and covering the following subjects:

Course content

Quality influencing factors

Upstream of extrusion
- Optical sorting
- Fine grinding with hammer mills
- Preconditioning

Extrusion
- Benefits of single-screw and twin-screw extruders
- Screw configuration
- Application of SME and STE
- Process and density control

Downstream of extrusion
- Coating and vacuum coating
- Drying

Further quality influences
- Raw material and its conversion during extrusion
- Digital solutions
- Extrusion as a kill step, incl. validation

Aqua feed
- Getting water stability and bulk density right
- Floating, slow- and fast-sinking feed
- Micro and shrimp pellets

Pet food
- Dry kibbles
- Snacks and treats
- Co-extruded filled pillows
- Baked pet food
- Wet pet food

Other subjects upon specific interests of participants.

Target group

This workshop is intended for operation supervisors, engineering or R&D personnel and many more: people actively involved in technological aspects and feasibility considerations of extrusion.

Date

March 15 – 18, 2027

Number of participants

Min. 15 participants

Location

Extrusion Application Center
Bühler AG in Uzwil, Switzerland

Costs

CHF 4'700.-

Includes: course documentation, lunches, coffee during breaks, social event with dinner.
Excludes: hotel accommodation, travelling costs, transportation/transfer between airport, hotel and Bühler.

Accommodation

Pre-booked rooms are available at Hotel Uzwil at a special rate. After registering, you will receive a link to book your room.

General inquiries

Send us your questions to
vn.academy@buhlergroup.com

Registration

Open the website and fill in the contact form:

www.buhlergroup.com/pet_aqua



Extrusion Technology in Aquafeed & Petfood 2027

Innovations for a **better world.**

BÜHLER

Extrusion Technology in Aquafeed & Petfood

Changzhou, China

This intensive course provides a structured understanding of the principal processes used in aquafeed and pet food manufacturing. It combines process theory, operating principles, critical parameter control, and hands-on training, covering the complete production chain from raw material preparation to finished-product packaging.

Course content

Raw material preparation and particle size reduction
Grinding principles, particle-size distribution, processing parameters, equipment settings, and optimization of grinding performance.

Proportioning & mixing
Dosing accuracy, mixing homogeneity, cross-contamination control, and their influence on product consistency.

Preconditioning and extrusion technology
Preconditioning, thermal and mechanical energy input, extrusion parameters, energy consumption, and final-moisture management.

Extruder configuration and die design
Comparison of single-screw and twin-screw extruders, screw configuration, die design, cutter setup, and appropriate applications.

Product quality and process control
Specific thermal energy (STE), specific mechanical energy (SME), bulk-density control, expansion, water stability, hygienic processing, and product-quality evaluation.

Hands-on production workshop
Practical production of floating and sinking fish feed, shrimp feed, dry pet food kibble, snacks, and treats.

Application (by application form)

Asia Institute of Feed Technology (AFT)
Bühler(Changzhou) Machinery Co., Ltd.
No. 88 Yunmei Road, Tianmu Lake District,
Liyang, Jiangsu 213300. P. R. China

Phone Number +86 519 8796 6666
Fax +86 519 8796 6000
Mobile Phone +85 519 8796 6000
WeChat 134 8995 9726
Email yalan.zhang@buhlergroup.com

Target group

Production operators, process engineers, plant supervisors, quality specialists, and R&D personnel involved in aquafeed or pet food manufacturing. Basic knowledge of feed manufacturing is recommended; previous extrusion experience is helpful but not mandatory.

Date

April 19 – 23, 2027 | October 18 – 22, 2027

Language

English

Number of participants

10 – 20

Location

Asia Institute of Feed Technology (AFT)
Bühler (Changzhou) Machinery Co., Ltd.
No. #88 Yonmei Road, Tianmu Lake District,
Liyang City, Jiangsu Province RPC

Costs

USD 2'000

Excludes: living cost, accommodation arrangement and traveling expenses

Accommodation

On request, we are pleased to help participants book a *** hotel (see application form). At a price of RMB 360 or RMB450 the hotel provides breakfast. Lunch and dinner will be provided by AFT with Chinese food only. AFT helps to provide local transfer from hotel to AFT and vice versa each day as well.

Registration

Please visit the website and fill out the application form or scan the QR code.
www.buhlergroup.com/extrusion-workshop

Bühler - Asia institute of Feeds Technology Application Form

Short Course of 2027

Course Selection

Tick	Course No.	Duration	Days	Language	Theme	Fee($)
☐	ENSC012027	Apr.19~23rd 2027	5	EN	Extrusion Technology in Aqua feed & Pet Food Industry	2,000
☐	ENSC012027	Oct.18~22nd 2027	5	EN	Extrusion Technology in Aqua feed & Pet Food Industry	2,000
☐	ENSC032027	May 17~21st 2027	5	EN	Machines & Process Technology in Feed Manufacturing Industry	2,000
☐	ENSC032027	Sept.20~24th 2027	5	EN	Machines & Process Technology in Feed Manufacturing Industry	2,000

Given Name：	
First Name：	
Sex	☐ Male ☐ female
Nationality or District	
Date of Birth	DD:MM:YYY
Private Address： ● Street ● Place ● Country or District	
Private phone：	
Email of own：	
Company Name：	
Company Address： ● Street ● Place ● Country or District	
Business phone:	
Business Email：	
Business Fax：	
Occupation：	
Hotel reservation	☐Yes ☐No
Single Room (price: $/day)	80~100$ /day
Date of apprival：	DD:MM:YYY
Date of departure：	DD:MM:YYY
Date of Apllication (please send form by Email,Fax or mailing)	DD:MM:YYY

Application to：

No.#88 Yunmei Road, Tianmu Lake District, Liyang City Jiangsu Province PRC
Bühler(Changzhou) Machinery Co., Ltd.
Asia Institute of Feeds Technology (AFT)
Post Code：213 300
Phone：+86 519 8796 6666
Fax：+86 519 8796 6000
Mobile Phone: +86 134 8995 9726
WeChat: 134 8995 9726
Email to: yalan.zhang@buhlergroup.com

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Food Extrusion & Puffing Workshop 2027

Innovations for a **better world.**

BÜHLER

Food Extrusion & Puffing Workshop

Cereals, plant-based proteins and ingredients

Uzwil, Switzerland

With emphasis on machine and process technology, this hands-on focused workshop consists of lab sessions in Bühler's state-of-the-art extrusion and puffing pilot plants complementend by theory lessons.

Course content

Pre-workshop self study

- Extrusion fundamentals
- Puffing fundamentals
- Ingredients

Introduction to extrusion

- Screw elements: function and configuration
- Effects of mechanical and thermal energy input
- Steam addition into extruder and preconditioning as a means of thermal energy addition
- De-gassing and application of vacuum as a means of therman energy removal
- Analytical methods to analyze raw materials and final products

Puffed and extruded cereals & snacks

- Puffing technology
- Direct and indirect expanded cereals & snacks
- Coloring and coating
- Co-extrusion
- Downstreaming options for cereals

Plant-based proteins

- Low moisture extrusion
- High moisture extrusion
- Downstreaming equipment
- Coloring and flavoring

Ingredients

- Modified flours & starches
- Reconstituted rice
- Extruded breadcrumbs

Target group

This workshop is intended for operation supervisors, engineering or R&D personnel, etc.

Date

April 12 – 15, 2027

Language

English

Number of participants

Min. 15 participants

Place

Extrusion and Puffing Application Centers
Bühler AG | Uzwil, Switzlerand
Safety first – please bring your safety shoes and safety glasses.

Costs

CHF 4'900.- excl. 8.1% VAT

Includes: course documentation, lunches, coffee, beverages and snacks during breaks, social event with dinner.
Excludes: hotel accommodation, travelling costs, transportation/transfer between airport, hotel and Bühler.

Hotel

Accomodation can be booked through Bühler when registering. Hotels and prices will be announced after registration.

General inquiries

vn.academy@buhlergroup.com

With focus on demonstrations in our state-of-the-art Extrusion and Puffing Application Centers we will have theory sessions in between to provide the neccessary understanding of the process of the puffed and extruded foods produced in each lab session.

Registration

Please visit the website and fill in the contact form:
www.buhlergroup.com/extrusion-workshop



Pasta Technologie Workshop 2027

Innovations for a **better world**.

BÜHLER

Pasta Technologie Workshop

Uzwil, Schweiz

Der fünftägige Prozesworkshop im Bühler Pasta Application Center behandelt den vollständigen Prozess der Pastaherstellung. Von der Auswahl der richtigen Rohstoffe über die Verarbeitung bis hin zur Trocknung liegt der Fokus auf der Optimierung der entscheidenden Faktoren zur Erhöhung der Qualität von Teigwaren.

Kursinhalt

Grundlagen für die Teigwarenherstellung

- Einführung und Übersicht Rohmaterialien
- Spezifikationen für hochwertige Teigwaren
- Einführung in die Müllereitechnologie

Extrusion

- Teig- und Strukturentwicklung bei der Herstellung von Weizenteigwaren
- Glutenfreie Pasta
- Laborversuch mit Priomatik und Polymatik
- Wartung und Nutzung von Matritzen

Trocknung

- Trocknung und Strukturstabilisierung im Herstellungsprozess
- Maschinen und zusätzliches Equipment für die Teigwarentrocknung
- Temperatur- und Feuchtigkeitssensoren
- Wartung und Fehlerbehebung von Trocknern

Qualität

- Methoden zur Analyse von Rohmaterial und Endprodukten mit Führung im internen Analyselabor
- Digitale Lösungen zur Prozessoptimierung und Verbesserung der Teigwarenqualität
- Sensorische Analyse gekochter Teigwaren

Zielgruppe

Erfahrenes und leitendes Personal in der Teigwarenproduktion, Betriebsleitung, Technolgie und Qualitätssicherung.

Trainingsdaten

26. – 30. April 2027 (Englisch)
20. – 24. September 2027 (Englisch)
(inkl. einer Besichtigung einer Teigwarenproduktion.

Teilnehmeranzahl

Mindestteilnehmerzahl: 8 Personen

Veranstaltungsort

Bühler Customer & Pasta Application Center.
Bühler AG | Uzwil, Schweiz

Kursgebühr

CHF 3'900.- zzgl. 8.1% MwSt

Inklusive: Dokumentation, Mittagessen, Verpflegung in den Pausen, zwei Abendveranstaltungen mit Abendessen, Besuch der Teigwarenproduktion.
Exklusive: Übernachtungen, Reisekosten.

Hotel

Es steht ein Zimmerkontigent im Hotel Uzwil zur Verfügung. Nach Ihrer Anmeldung erhalten Sie den Buchungslink.

Anfragen

vn.academy@buhlergroup.com

Anmeldung

Scannen Sie den QR-Code oder rufen Sie die Website auf, um sich anzumelden.
www.buhlergroup.com/pasta-technology-workshop



Pasta Technology Workshop 2027

Innovations for a **better world**.

BÜHLER

Pasta Technology Workshop

Uzwil, Switzerland

This five-day process workshop at the Bühler pasta pilot plant covers the entire process, focusing on improving pasta quality starting at selecting the right raw material and ending at drying pasta the right way.

Course content

Raw material for dry pasta production

- Raw material overview
- Specifications of high-quality raw material
- Basics of milling technology
- Nutritional trends in pasta production

Extrusion process

- Dough formation and structure development
- Pasta presses and extrusion technology
- Glufen-free pasta
- Live demo on Priomatik and Polymatik
- Pasta dies handling and workshop

Quality

- Drying and structural stabilization in the production of pasta
- Production equipment for pasta drying
- Temperature and humidity sensors
- Maintenance and troubleshooting

Quality

- Methods for analyzing raw materials and end products including demonstration in Bühler's analytical laboratory.
- Digital solutions to improve product quality and process stability.
- Sensory analysis of cooked pasta.

Target group

Experienced and senior employees in pasta production, plant management, pasta technology and quality assurance.

Dates

April 26 – 30, 2027 (English)
September 20 – 24, 2027 (English)
(incl. 1 day visit to a local pasta plant)

Number of participants

Min. 8 participants

Location

Customer Center & Pasta Application Center.
Bühler AG, Uzwil, Switzerland.
Please bring your own safety footwear.

Costs

CHF 3'900.- excl. 8.1% VAT

Includes: course documentation, lunches, two social events with dinner, visit to pasta plant.
Excludes: Hotel accommodation, traveling costs, transfers to and from Bühler.

Hotel

Accomodation can be booked through Bühler when registering. Hotels and prices will be announced after registration.

General inquiries

vn.academy@buhlergroup.com

Registration

Please visit our website and fill out the contact form:
www.buhlergroup.com/pasta-technology-workshop



Machine & Process Technology in Feed Manufacturing 2027

Innovations for a **better world.**

BÜHLER

Machines & Process Technology in Feed Manufacturing
Changzhou, China

This course concentrates on the practical aspects of machines and process technology, with a focus on productivity, accuracy and homogeneity, hygiene, quality, and energy consumption and cost saving. It provides an understanding of the various processes in a feed mill, including pre-mix and compound feed.

Course content

Aspiration system
Basics and systematic techniques for designing calculations.

Feedmill process leverage
Plant layouts and various processes for targeted product.

Particle size reduction
Proper grinding system setups for final products, targeted particle size management and efficiency improvements.

Proportioning and mixing
Accuracy, homogeneity test and liquid application techniques.

Hygienization
Thermal process design and operation management.

Compacting
Pelleting, expanding and extrusion in feed manufacturing.

Drying and cooling
Basics, efficiency improvement and energy cost saving.

Operating principles and analytical methods
Operating basic principles corresponding to specific equipment and processes; analytical methods and results evaluation for continuous improvement.

Practical workshop
Various practices on key pieces of equipment.

Application (by application form)

Asia Institute of Feed Technology (AFT)
Bühler(Changzhou) Machinery Co., Ltd.
No. 88 Yunmei Road, Tianmu Lake District,
Liyang, Jiangsu 213300. P. R. China

Phone Number +86 519 8796 6666
Fax +86 519 8796 6000
Mobile Phone +85 519 8796 6000
WeChat 134 8995 9726
Email yalan.zhang@buhlergroup.com

Target group

Production operators, process engineers, plant supervisors, quality specialists, and R&D personnel involved in aquafeed or pet food manufacturing. Basic knowledge of feed manufacturing is recommended; previous extrusion experience is helpful but not mandatory.

Date

May 17 – 21, 2027 | September 20 – 24, 2027

Language

English

Number of participants

10 – 20

Location

Asia Institute of Feed Technology (AFT)
Bühler (Changzhou) Machinery Co., Ltd.
No. #88 Yonmei Road, Tianmu Lake District,
Liyang City, Jiangsu Province RPC

Costs

USD 2'000

Excludes: living cost, accommodation arrangement and traveling expenses

Accommodation

On request, we are pleased to help participants book a *** hotel (see application form). At a price of RMB 360 or RMB450 the hotel provides breakfast. Lunch and dinner will be provided by AFT with Chinese food only. AFT helps to provide local transfer from hotel to AFT and vice versa each day as well.

Registration

Please visit the website and fill out the application form or scan the QR code.
www.buhlergroup.com/extrusion-workshop

Bühler - Asia institute of Feeds Technology Application Form

Short Course of 2027

Course Selection

Tick	Course No.	Duration	Days	Language	Theme	Fee($)
☐	ENSC012027	Apr.19~23rd 2027	5	EN	Extrusion Technology in Aqua feed & Pet Food Industry	2,000
☐	ENSC012027	Oct.18~22nd 2027	5	EN	Extrusion Technology in Aqua feed & Pet Food Industry	2,000
☐	ENSC032027	May 17~21st 2027	5	EN	Machines & Process Technology in Feed Manufacturing Industry	2,000
☐	ENSC032027	Sept.20~24th 2027	5	EN	Machines & Process Technology in Feed Manufacturing Industry	2,000

Given Name：	
First Name：	
Sex	☐ Male ☐ female
Nationality or District	
Date of Birth	DD:MM:YYY
Private Address： ● Street ● Place ● Country or District	
Private phone：	
Email of own：	
Company Name：	
Company Address： ● Street ● Place ● Country or District	
Business phone:	
Business Email：	
Business Fax：	
Occupation：	
Hotel reservation	☐Yes ☐No
Single Room (price: $/day)	80~100$ /day
Date of apprival：	DD:MM:YYY
Date of departure：	DD:MM:YYY
Date of Apllication (please send form by Email,Fax or mailing)	DD:MM:YYY

Application to：

No.#88 Yunmei Road, Tianmu Lake District, Liyang City Jiangsu Province PRC
Bühler(Changzhou) Machinery Co., Ltd.
Asia Institute of Feeds Technology (AFT)
Post Code：213 300
Phone：+86 519 8796 6666
Fax：+86 519 8796 6000
Mobile Phone: +86 134 8995 9726
WeChat: 134 8995 9726
Email to: yalan.zhang@buhlergroup.com

（Scan to Us in Wechat）



Conveyor Drying Workshop 2027

Innovations for a **better world.**

BÜHLER

Conveyor Drying Theory Put to Practice Workshop

Uzwil, Switzerland

This 3-day course will start with the basics of drying theory and increase in complexity to expand your knowledge of conveyor drying. This is accomplished through a combination of focused lectures and several hand-on laboratory sessions at our Application Center in Uzwil, Switzerland.
This seminar will provide practical, applicable knowledge you will need to get the most out of your drying process.

Why this course is important

Most conveyor convection dryers are operating at 10% – 30% below their potential efficiency. Even in smaller production lines, this is a major source of lost revenue.

Course content

- Drying basics & air properties
- Drying application
- Mechanical inspection
- Simulation
- Dryer evaluation
- Troubleshooting
- Controls and instrumentation
- Mechanical and process evaluation techniques
- Economics of drying
- Energy recovery and energy efficiency
- Drying curve development & review
- Airflow measurement
- Heat and mass balance
- Energy recovery
- Digital services
- Laboratory sessions
- Tour through factory, application center and CUBIC Innovation Center

Target group

Process and quality engineers, R&D personnel, food scientists, maintenance engineers, shift supervisors and plant managers.

Date

November 9 – 11, 2027

Language

English

Number of participants

Min. 8 participants

Location

Bühler Research & Training Centers
Uzwil | Switzerlandr

Costs

CHF 2,800.- excl. 8.1% VAT
Included: course documentation, lunches, social evening with dinner.
Excluded: Hotel accommodation, traveling costs, transportation/transfer between airport, hotel and Bühler.

General inquiries

Send us your questions to
vn.academy@buhlergroup.com

Accommodation

Pre-booked rooms are available at Hotel Uzwil at a special rate. After registering, you will receive a link to book your room.

Registration

Please visit our website and fill out the contact form:
https://www.buhlergroup.com/global/de/training/Drying-theory-put-into-practice-uzwil.html