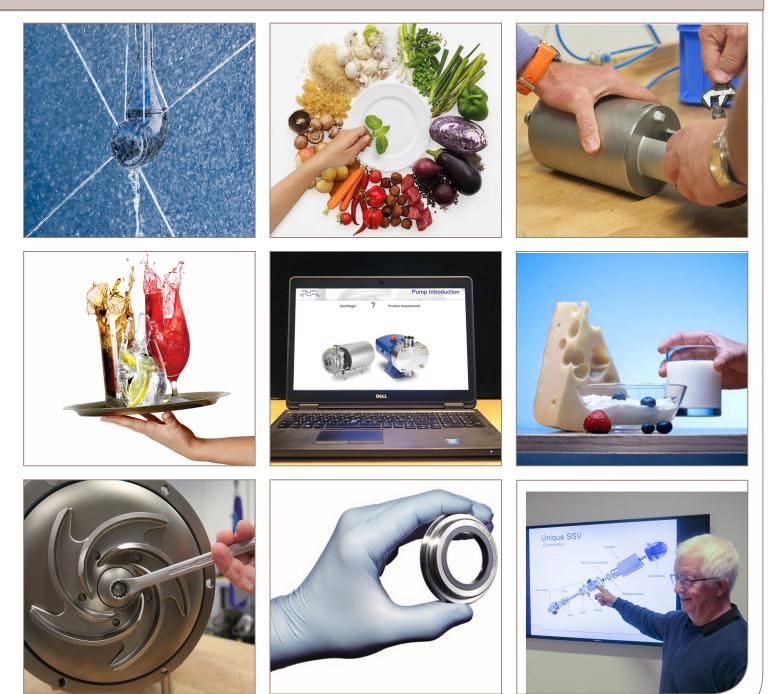


Alfa Laval Partner Academy

Hygienic equipment & service training 2018



Training to increase competence

A complete training package

Alfa Laval offers a complete package of online and classroom trainings covering our channel business within Hygienic Equipment and Service. Via trainings we ensure our channel partners have the right competences to reach the full potential with the Alfa Laval business.

19 eLearning self-studies and more than 65 recorded webinars are available online for you to boost your competence level in a convenient way that does not require travelling. Please see the available offerings on the next pages and sign up via Alfa Laval Anytime or Share/Learning Portal.

Boost competence according to your needs

We offer training at three levels that are mapped to job roles. These levels have this year been renamed to Basic level, Intermediate level and Advanced level.

The basic level is covered via online e-learning, self-studies and webinars, while intermediate and advanced level trainings are classroom trainings.

The expectation is that our channel partners have received training according to the graphics shown below where a coloured square means that it is considered vital to reach that level. The dotted line illustrates that these levels are split into product training followed by application training. The expected level is different for different employee roles.

Basic training level

On basic level we offer eLearning self-studies within our products, the industries we sell into, service, sales and tools. We currently have 19 self-studies available.

Additionally, we will in 2018 offer 22 interactive live webinars. The webinars are complimentary to the self-study modules and are good opportunities to learn about specific new product launches, targeted industries or new tools offered. Webinars are recorded and made available online, and you can already find more than 65 recorded webinars online.

Intermediate training level

After basic training you can increase your competence level further by attending one of the classroom trainings offered.

Sign up for the intermediate level product training to get hands on experience with our products. You will be trained to size and configure the right product and sell it using features, advantages and benefits arguments and knowledge about the competitors. We offer five product trainings at the intermediate level.

We also offer application trainings where you will learn about the application and processes that we sell into. To sign up for application training, you should have some years of experience and have completed relevant intermediate level product trainings.

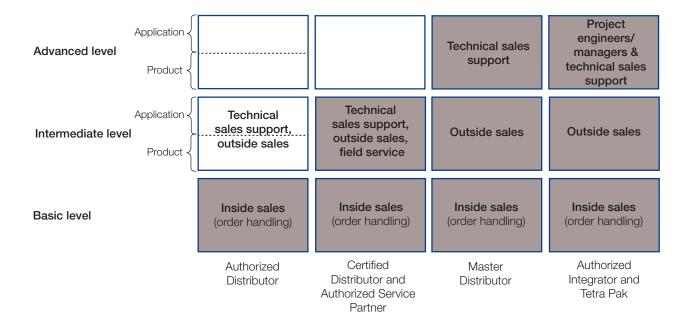
Advanced training level

The advanced level is the highest training level offered. We offer six product trainings at the advanced level, which are designed for you to become your company's 'specialist' within the product area covered.

Welcome to our trainings

We hope that you find the 2018 programme interesting. We encourage you to take our self-study modules, join our webinars and we look forward to welcome you at our classroom trainings.

Competence development team BU Hygienic Fluid Handling



Basic level: eLearning, self-studies and webinars

Self-studies:

We have a complete offering of 19 self-study modules.

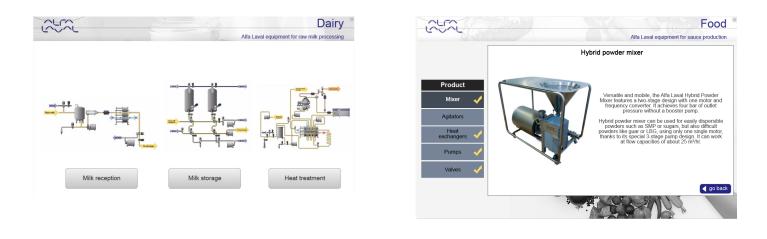
The self-study modules are covering our product portfolio, each of the 5 industries we cover, as well as service, sales and tools.

- Commercial product introductions
- Hygienic pumps introduction
- Hygienic valves introduction
- Hygienic automation introduction
- Hygienic tank equipment introduction
- Hygienic installation material introduction
- Hygienic heat exchangers introduction
- Hygienic membrane filtration introduction
- Service
- Service foundation for channel partners Hygienic
- How to sell service
- Growing service partners
- 360 service portfolio app

- Industries
- Beverage application introduction
- Pharma application introduction
- Home and personal care application introduction
- Dairy application introduction
- Food application introduction
- Sales & tools
- Anytime introduction Hygienic
- eTools Hygienic

Instrumentation

- Essential sales eBricks



All eLearning can be accessed via Alfa Laval Anytime and Learning Portal.

Webinars:

Webinars will be around 30 min long and held twice per day at 9:00 CET and at 15:30 CET.

TOPIC

DATE

Pumps	
Pharma pump portfolio expansion launch	05-02-2018
Sustainable optimisation, pumps&valves	10-09-2018
Pumps portfolio update	24-09-2018
LKH Prime range extension	
Obtilobe update	19-11-2018

Valves/automation

Unique Mixproof portfolio extension	04-04-2018
DV-ST portfolio extension	
Automation for the US market	08-10-2018
Aseptic Mixproof valve	24-10-2018
Automation portfolio	10-12-2018

Tank equipment

TJ40G Burst	29-01-2018
Sustainable optimisation, tank cleaning&agitators	s.17-09-2018
Magnetic Mixer	17-12-2018

Pharma	
Focus on Pharma	05-03-2018
Focus on Pharma	09-04-2018
Focus on Pharma	07-05-2018
Focus on Pharma	
Focus on Pharma	03-09-2018
Focus on Pharma	01-10-2018

"Focus on Pharma" is a series of webinars sharing information in relation to pharma products and application.

Hygienic equipment & service webinars

January	February	March	April	May	June
M 1	T 1	T 1	S 1	T 1	F 1
Т 2	F 2	F 2	M 2	W 2	S 2
W 3	S 3	S 3	т 3	Т 3	S 3
Т 4	S 4	S 4	W 4 Unique Mixproof portfolio extension	F 4	M 4
F 5	M 5 Pharma pump portfolio expansion launch	M 5 Focus on Pharma	Т 5	S 5	Т 5
S 6	Т 6	T 6	F 6	S 6	W 6
S 7	W 7	W 7	S 7	M 7 Focus on Pharma	Т 7
M 8	T 8	T 8	S 8	T 8	F 8
Т 9	F 9	F 9	M 9 Focus on Pharma	W 9	S 9
W 10	S 10	S 10	T 10	T 10	S 10
T 11	S 11	S 11	W 11	F 11	M 11 Focus on Pharma
F 12	M 12	M 12	T 12	S 12	T 12
S 13	T 13	T 13	F 13	S 13	W13
S 14	W 14	W 14	S 14	M 14	T 14
M 15	T 15	T 15	S 15	T 15	F 15
T 16	F 16	F 16	M 16	W 16	S 16
W 17	S 17	S 17	Т 17	T 17	S 17
T 18	S 18	S 18	W 18	F 18	M 18 DV-ST portfolio extension
F 19	M 19	M 19	Т 19	S 19	T 19
S 20	T 20	T 20	F 20	S 20	W 20
S 21	W21	W 21	S 21	M 21	T 21
M 22	T 22	T 22	S 22	T 22	F 22
T 23	F 23	F 23	M 23	W 23	S 23
W 24	S 24	S 24	T 24	Т 24	S 24
Т 25	S 25	S 25	W 25	F 25	M 25
F 26	M 26	M 26	Т 26	S 26	Т 26
S 27	T 27	T 27	F 27	S 27	W27
S 28	W 28	W 28	S 28	M 28	T 28
M 29 TJ40G Burst		T 29	S 29	Т 29	F 29
Т 30		F 30	M 30	W 30	S 30
W 31		S 31		T 31	

General	information
acherai	

<u>Training fee</u> No fee

Twice per day on the days mentioned at 09:00 CET

All webinars are held in English.

<u>Sign up</u> Information about sign up can be found: Externals: Alfa Laval Anytime/Training/Basic level Share/ALPAS Food and Water Division/BU

Hygienic Fluid Handling site

September	October	November	December
S 1	M 1 Focus on Pharma	Т 1	S 1
S 2	Т 2	F 2	S 2
M 3 Focus on Pharma	W 3	S 3	M 3 Focus on Pharma
Т 4	Т 4	S 4	Т 4
W 5	F 5	M 5 Focus on Pharma	W 5
Т 6	S 6	Т 6	Т 6
F 7	S 7	W 7	F 7
S 8	M 8 Automation for the US market	Т 8	S 8
S 9	Т 9	F 9	S 9
M 10 Sustainable optimisation, pumps & valves	W10	S 10	M10 Automation portfolio
T 11	T 11	S 11	T 11
W 12	F 12	M 12	W12
Т 13	S 13	T 13	Т 13
F 14	S 14	W14	F 14
S 15	M 15	T 15	S 15
S 16	т 16	<u>F 16</u>	S 16
M 17 Sustainable optimisation, tank cleaning & agitators	W17	S 17	M17 Magnetic Mixer
T 18	T 18	S 18	T 18
W 19	F 19	M 19 Optilobe update	W19
T 20	S 20	Т 20	Т 20
F 21	S 21	W21	F 21
S 22	M 22 ATEX load cells	Т 22	S 22
S 23	Т 23	F 23	S 23
M 24 Pumps portfolio update	W24 Aseptic Mixproof valve	S 24	M24
Т 25	Т 25	S 25	Т 25
W 26	F 26	M 26	W26
T 27	S 27	Т 27	Т 27
F 28	S 28	W28	F 28
S 29	M 29 LKH Prime range extension	Т 29	S 29
S 30	Т 30	F 30	S 30
	W31		M31

Hygienic equipment & service classroom trainings

January	February	March	April	May	June
M 1	T 1	T 1	S 1	T 1	F 1
T 2	F 2	F 2	M 2	W 2	S 2
W 3	S 3	S 3	Т 3	Т 3	S 3
Τ 4	S 4	S 4	W 4	F 4	M 4
F 5	M 5	M 5	T 5	S 5	Т 5
S 6	Т 6	Тб	F 6	S 6	W 6
S 7	W 7	W 7 Hygienic valves & pumps	S 7	M 7	Т 7
M 8	T 8	Т 8	S 8	Т 8	F 8
Т 9	F 9	F 9	M 9	W 9	S 9
W10	S 10	S 10	T 10	T 10	S 10
T 11	S 11	S 11	W11	F 11	M 11
F 12	M 12	M 12	T 12	S 12	T 12
S 13	T 13	Т 13	F 13	S 13	W 13
S 14	W 14	W 14	S 14	M 14	Т 14
M 15	T 15	Т 15	S 15	T 15	F 15
T 16	F 16	F 16	M 16	W 16	S 16
W17	S 17	S 17	T 17 Advanced hygienic	T 17	S 17
T 18	S 18	S 18	W18 valves	F 18	M 18
F 19	M 19	M 19	T 19	S 19	T 19 Hygienic service &
S 20	T 20	Т 20	F 20	S 20	W 20 maintenance
S 21	W 21	W 21	S 21	M 21	T 21
M 22	T 22	Т 22	S 22	T 22	F 22
Т 23	F 23	F 23	M 23	W 23	S 23
W24	S 24	S 24	T 24	T 24	S 24
Т 25	S 25	S 25	W25 Hygienic tank equipment	F 25	M 25
F 26	M 26	M 26	T 26	S 26	Т 26
S 27	T 27	Т 27	F 27	S 27	W 27
S 28	W 28	W 28	S 28	M 28	Т 28
M 29		Т 29	S 29	T 29	F 29
Т 30		F 30	M 30	W 30	S 30
W31		S 31		T 31	

General information

<u>Training fee</u> The training fee will be invoiced after the training.

Language

All courses are held in English.

Course certificate

<u>Enrolment</u>

Externals: Alfa Laval Anytime/Training Internals: Share/Learning Portal or contact Elina Mäkinen, elina.makinen@alfalaval.com

Further information

More information about the courses and training in general can be found on Alfa Laval Anytime/Training and Share/Learning Portal or contact

Elina Mäkinen, elina.makinen@alfalaval.com

September	October	November	December
S 1	M 1	T 1	S 1
S 2	T 2 Advanced hygienic	F 2	S 2
М З	W 3 pumps	S 3	M 3
Т 4	Τ 4	S 4	Τ 4
W 5	F 5	M 5	W 5
Т 6	S 6	Т 6	Т 6
F 7	S 7	W 7	F 7
S 8	M 8	Т 8	S 8
S 9	T 9 Hygienic valves &	F 9	S 9
M 10	W10 pumps	S 10	M 10
T 11	T 11	S 11	T 11 Biopharm applica-
W12	F 12	M 12	W12 tions & processes
T 13	S 13	T 13	T 13
F 14	S 14	W14	F 14
S 15	M 15	T 15	S 15
S 16	T 16	F 16	S 16
M 17	W17	S 17	M17
T 18 Hygienic GPHE ser-	T 18	S 18	T 18
W19 vice & maintenance	F 19	M 19	W19
T 20	S 20	T 20 Dairy, beverage & food applications &	Т 20
F 21	S 21	W21 processes	F 21
S 22	M22	Т 22	S 22
S 23	T 23	F 23	S 23
M 24	W24 Advanced hygienic	S 24	M 24
T 25 Advanced hygienic plate heat	T 25 instrumentation	S 25	T 25
W26 exchangers	F 26	M 26	W26
Т 27	S 27	Т 27	Т 27
F 28	S 28	W28	F 28
S 29	M 29	Т 29	S 29
S 30	T 30 Advanced hygienic	F 30	S 30
	W31 valves		M31

Intermediate level: classroom trainings

Hygienic valves and pumps

Objective

The objective of this course is to provide a technical understanding of the Alfa Laval valves, valve automation equipment and pumps, their features, advantages and benefits and selected main competitors in some areas to be able to sell using features, advantages and benefits arguments, and to enable the participants to handle detailed, technical inquiries and select the right products using our sizing and selection tools.

Content

- Valves and valve automation (2 days): Butterfly and ball valves, SSV Single Seat Valves, mixproofability, Unique Mixproof Valves and SMP-BC Mixproof Valves, diaphragm valves, regulation valves, and valve automation. Pumps (3 days):
- Pump theory, LKH and SolidC centrifugal pumps incl. LKH Evap, rotary lobe and circumferential piston pumps

Duration:	5 days
Location:	Alfa Laval Kolding, Denmark
Dates:	5-9 March and 8-12 October, 2018

Hygienic tank equipment

Objective

The objective is to provide an overview of the tank equipment portfolio and how to sell using features, advantages and benefits arguments and to enable the participants to handle technical inquiries through the use of CAS, eBusiness, the Close at Hand catalogue etc.

Content

- Tank cleaning: ٠ Technology and portfolio, features, advantages and benefits, selected competitors, and design and selection in different applications using CAS including exercises.
- Agitators and mixers: Mixing duties, the Alfa Laval mixing technologies, features, advantages and benefits, positioning of different mixing technologies, and introduction to the quote process.
- Instrumentation: Introduction to Rotacheck, flow transmitters, weighing systems and level switches, features, advantages and benefits and selection.

Duration. 3 days Alfa Laval Kolding, Denmark Location. 24-26 April, 2018 Dates:

Hygienic service and maintenance

Objective

The objective of this course is that the participants upon completion of the course should feel confident doing maintenance and trouble shooting of hygienic components in the field.

Content

Maintain, disassemble and rebuild the hygienic core products:

- Seat valves and Mixproof valves
- Ball valves and butterfly valves
- Regulating valves
- Centrifugal pumps
- Positive displacement pumps
- Cleaning equipment Aditators

Duration:	3 days
Location:	Alfa Laval Kolding, Denmark
Dates:	19-21 June, 2018

Hygienic GPHE service and maintenance

Objective

The objective of this course is that the participants upon completion of the course should feel confident doing maintenance and trouble shooting of Alfa Laval FrontLine and BaseLine in the field.

Content

Maintain, disassemble and rebuild the hygienic GPHE range

FrontLine

BaseLine

There will be focus on genuine spare parts, preventive maintenance and on a structured way of doing trouble shooting as well as tips and tricks when doing service.

Duration: Location: Dates:

2 days Alfa Laval Kolding, Denmark 18-19 September, 2018

Hygienic membranes

Objective

The objective of this course is to provide an overview of Alfa Laval's membrane technology - the products and the hygienic applications. After the course the participants will be able to spot suitable membrane projects at customers and to develop them to an order with support from the membrane team.

Content

Membrane theory

- Membrane technology and portfolio including features, advantages and benefits and competition
- Hygienic membrane applications including sizing and selection

These aspects will be supported by:

- Introduction to sales tools and sales support
- Tour of the membrane factory

Location:

2 days Alfa Laval Nakskov, Denmark

Dairy, beverage and food applications and processes

Objective

The objective of this course is to enable participants to increase sales into the dairy, beverage and food industries through increased understanding of the customer's requirements and how the use of Alfa Laval components makes a difference in process reliability and profitability.

Content

For each industry we will cover:Market trends

- Use and function of ingredients
- CIP processes

Examples of specific applications and processes covered: Milk heat treatment principles Milk pasteurization, separation and homogenization

- Egg product production
- Production of viscous products
- Water processing
- Juice processing

Duration:	2 days
Location:	Alfa Laval Kolding, Denmark
Dates:	20 - 21 November, 2018

Biopharm applications and processes

Objective

The objective of this course is to support our biopharm sales by providing an understanding of the main applications and processes within the industry. The course will also give a good understanding of how to select and sell our equipment into different processes.

Duration: Location: Dates:

3 days Alfa Laval Kolding, Denmark 11-13 December, 2018

Home and personal care applications and processes

Objective

The objective of this course is to support our home and personal care sales by providing an understanding of the main applications and processes within the industries. The course will also give a good understanding of how to select and sell our equipment into different processes.

Duration: 2 days Dates: NOTE! On-request training Detailed course descriptions and enrolment:

Externals: Alfa Laval Anytime/Training

Internals: Share/Learning Portal

Futher information: elina.makinen@alfalaval.com

Duration: Dates: NOTE! On-request training

Advanced hygienic pumps

Objective

The objective of this course is to gain comprehensive technical and commercial knowledge to assist in developing the sales of both rotary lobe and centrifugal pumps and to be capable of imparting this information to the local inside and outside sales teams.

Content

- Extensive Alfa Laval pump range overview including features, advantages and benefits
- Typical pump applications and how to do competitive CAS sizing including pump energy optimization
- Hands-on evaluation of Alfa Laval pump range and of the top competitors to be able to make key feature comparisons
- Hands-on strip down of various pump types to be able to demonstrate maintenance and troubleshooting
- How to find support materials (pricelists, manuals, certificates, etc.)

Duration: 5 days Alfa Laval Kolding, Denmark Location: 1-5 October, 2018 Dates:

Advanced hygienic valves

Objective

The primary objective of the course is to provide a deep knowledge of valve selection and configuration, valve matrix design guidelines and of the principles used in hygienic design. The course will focus on features and benefits of the Alfa Laval valve technologies used in matrix design and compare them to competitor solutions.

Content

- Principles of hygienic design Mixproof valve technology: the Alfa Laval mixproof technologies, selection and sizing of mixproof valves, • features, advantages and benefits, positioning of the different mixproof technologies. Comparison with competitor offerings
- Valve matrix design: basic guidelines for valve matrix design, tips and tricks, discussion of pros and cons of different designs
- Valve matrix optimization: designs to reduce water/CIP consumption, pressure drop calculations to estimate energy consumption, payback calculations for alternative designs
- Regulating valves and sample valves: technology and portfolio, design and selection for different standard duties, features, advantages and benefits

Duration:	3 days
Location:	Alfa Laval Kolding, Denmark
Dates:	17-19 April and 30 Oct-1 November, 2018

Advanced hygienic tank cleaning equipment

Objective

The objective is to provide a comprehensive understanding of tank cleaning and of the Alfa Laval tank cleaning tech-nologies and portfolio and where to offer what. Furthermore, the objective is that the participant should confidently be able to sell using features, advantages and benefits arguments for the different products comparing also to competitor solutions. Finally, the participant will be trained in handling selection.

Duration: 2 davs NOTE! On-request training Dates:

Advanced hygienic plate heat exchangers

Objective

The primary objective of this course is to acquire good technical knowledge about the plate heat exchanger as a concept, and how to select and size them by doing CAS exercises within the following areas: beverage, brewery, dairy, food and for utilities used in these industries.

Content

Objective

tion

- Hygienic plate heat exchanger product rangeHow to configure the plate heat exchanger
- CAS 5 single section designs (1-phase duties only)
- CAS 5 multi section designs (1-phase duties only) Available tools
- Physical properties of fluids

The course is heavily focused on the participants doing exercises in CAS 5

Advanced hygienic agitators and mixers

The objective is to provide a comprehensive understand-

mixing technologies and where to use what technology. Furthermore, the objective is that the participant should

ing of mixing duties and mixing theory and of the Alfa Laval

Duration:	4 days
Location:	Alfa Laval Kolding, Denmark
Dates:	24-27 September, 2018

Advanced hygienic instrumentation

Objective

The objective is to provide a comprehensive understanding of instrumentation, in and around hygienic tanks used in food, dairy, brevery, beverage and pharma productions. Furthermore, the objective is that the participant should confidently be able to sell using features, advantages and benefits arguments for the different products comparing also to competitor solutions.

Content

- Weighing systems
- Flow transmitters
- Tank cleaning validation
- Level measurement
- Temperature measurement
- Pressure measurement

Duration: 2 davs Alfa Laval Kolding, Denmark Location: Dates: 24-25 October, 2018

Detailed course descriptions and enrolment:

Externals: Alfa Laval Anytime/Training

Internals: Share/Learning Portal

Futher information: elina.makinen@alfalaval.com confidently be able to sell using features, advantages and benefits arguments for the different products comparing also to competitor solutions. Finally, the participant will be trained in handling mixing inquiries and agitator configura-

Duration. 2 days NOTE! On-request training Dates:

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com Alfa Laval is a trademark registered and owned by Alfa Laval Corporate AB, Sweden. Alfa Laval © 2018