IPI Academy

MANAGEMENT forum

Presented by
Management Forum

Pre-Filled Syringes: End-to-End Processing

21-22 July 2025
+ 5-6 November 2025

Learn cutting-edge pre-filled syringe processing techniques from industry experts. Covers machine technology, visual inspection, and terminal sterilisation with 12 CPD hours.

Format:
Live online

CPD:
12 hours for your records

Certificate of completion

Course overview

This intensive two-day course has been designed to offer a comprehensive, practical, and usable review of the production of PFS and will provide the latest information on all aspects of the process from manufacture and packaging for fill/finish through to final (post-fill) inspection. Quality will be a key focus of the programme and there will be extensive coverage of improvements in the manufacturing process, including advances in cleanroom technology and sterilisation. Other sessions will address visual inspection and the latest regulatory requirements to ensure that you are fully up to date. The faculty of speakers will provide key guidance and advice from their practical experience in this field and there will be ample opportunity for discussion.

Benefits of attending

- **Explore** recent improvements in the manufacturing process
- **Understand** visual inspection
- **Know** the latest regulatory requirements

Who should attend?

This event is ideal for pharma start-ups, small and medium-sized pharma companies, CROs, CMOs, machine suppliers, hospital dispensaries, and anyone new to PFS or wanting to learn more in a relaxed and open environment. It will be of value to those working in the area of PFS with responsibility for device programmes, product development, product life cycle management, regulatory affairs, quality assurance and combination products. Drug delivery specialists, business development managers and product development managers will also find this course beneficial.

Programme

Day 1

Syringe manufacture from components to the final product – an overview

- Elements of pre-filled syringes
- Process options
  Component preparation: the basics
- Siliconisation: a closer look
- Filling and stoppering in a nutshell (with videos)

PFS filling & closing machines – available options

- Lab scale to high-speed
- Typical processes therein
- Decision matrix & supplier assessment criteria

PFS filling & closing machines – a closer look

- A typical filling line from start to end – an overview
- Introduction of components – Infeed
- Filling and closing in real life (with videos)
- Pumps – 'fit for purpose'/stoppering options
- Getting the filled units out – Outfeed

Terminal sterilisation of pre-filled syringes

- Why?
- How it is done?
- Points to consider
- Validation

Visual inspection of pre-filled syringes

- Defects and their detection
- Inspection methods
- Assessing batch and sorting quality
- Specific aspects of pre-filled syringes
- Visual inspection in the quality life-cycle
- Setting up a manual visual inspection

Secondary packaging machines for PFS: an introduction

- What is secondary packaging?
- Walk through a typical facility 2° packaging line (example/video)
- Trends in secondary packaging
- PFS handling special: glass-to-glass contact

Trends in PFS: drug delivery

- Market dynamics
- Innovation in PFS
- Drug development trends
- Manufacturing technology trends

Day 2

PFS: from the early days to the latest developments

- Evolution of systems
- Evolution of components
- Evolution of application and application systems

Device assembling and control processes for autoinjectors

- Target product process
- Impact primary packaging material
- Assembling steps
- Inline controls
- Function/release tests
- Final packaging

A primer on system selection

- Points to consider
- Available options

Regulatory requirements for pre-filled syringes

- ISO design compliance
- New MDR – what about it?
- US requirements for combination products

Workshop: for 3 product profiles

- Identify the optimal components (primary and accessories)
- Identify the optimal target fill volume
- Identify the optimal processes (siliconisation and filling)

What comes back – typical technical complaints

- Some statistics
- PFS complaints 'decoded'
- Issues when dealing with PFS-related complaints
- Some examples and typical investigation routes

PFS state-of-the-union address and event summary

- Review of the market for PFS
- Review of PFS Processing
- Future trends in PFS

Presenters

Dale Charlton

Dale Charlton is a Freelance Consultant for automation and fill / finish. Dale has spent a lifelong career in Life Sciences and Biotechnology encompassing both the academic and industrial sectors. Dale worked in a technical capacity in basic R&D at a major University and EMBL Heidelberg before embarking on a more formal academic career in biotechnology and studying for a PhD within the Drug Discovery Group of Pfizer into growth factor research (rGH, GHRF, IgF) . With industrial spells at Porton Down and Pittman-Moore (formerly Glaxo Animal Vaccines) in API and API scale-up, Dale settled back into biotech manufacture and moved more into the supply chain of finished drug products for small molecules & biologics, first as the MD of a life sciences distribution company and later as Director of Business Development, Optima pharma in sterile production automation. Having worked in the pharmaceutical industry from R&D to finished drug product, Dale has a unique understanding of the entire drug development life cycle and offers insight from both the pharma and a suppliers perspective.

Susanne Hall

Susanne Hall began her career in 1990 at Dr. Karl Thomae (today known as Böhringer Ingelheim) in Biberach as Head of Packaging Technology. In 1993, she joined Vetter's Research and Development department as Head of Packaging Material Incoming Control and in 2008 was named Team Leader of Secondary Packaging.

Since 2019, she has been the Director of Secondary Packaging and AVI Projects. In this position, Susanne leads three teams that ensure the implementation of customer products from development to commercial into production. For secondary packaging this includes device assembly, labeling and final packaging as well as implementing tests for a controlled safe process and the meeting of customer expectations. She is also responsible for the transfer of products from manual visual inspection to fully automated inspection lines.

Susanne has a diploma in engineering from the College of Engineering where she focused on specialized precision engineering.

Andreas Rothmund

Dr. Andreas Rothmund is Qualified Person (retd) at Vetter Pharma-Fertigung in Ravensburg, Germany, an independent contract manufacturer specialised in the aseptic production of pre-filled application systems. He started his industrial career in 1985 as a lab manager. After two years he took over production responsibility for a German company specialised in eye drops and eye ointments, a position he held for nearly eight years.

He joined Vetter in 1994, where he has held several positions, including Head of Production for one of Vetter's aseptic production units. He holds a degree in organic chemistry from the University of Constance, Germany.

Course dates

21-22 July 2025	**Live online** 09:30-17:00 **UK (London)** (UTC+01) *Course code 14876*	GBP **1,499** EUR **2,099** USD **2,399**
5-6 November 2025	**Live online** 09:30-17:00 **UK (London)** (UTC+00) *Course code 15045*	GBP **1,299** ~~1,499~~ EUR **1,819** ~~2,099~~ USD **2,087** ~~2,399~~ **Until 01 Oct**

How to book

Online:
ipi.academy/1556

Alternatively contact us to book, or if you have any queries:

Email:
info@ipiacademy.com

Phone:
+44 (0)20 7749 4749

Discounts

- Booking more than one delegate on any one date qualifies for a **30% discount** on the second and subsequent places.
- Most events qualify for an **early booking discount** prior to 6 weeks before the course date. Be sure to check on our website, where the latest discounts will be shown.

Further information

Fee
The fee includes all meals and refreshments for the duration of the course (for venue-based courses) and a complete set of course materials (provided electronically). If you have any particular requirements, please advise customer services when booking.

Please note
IPI Academy (and our training partners) reserve the right to change the content and timing of the programme, the speakers, the date and venue due to reasons beyond their control. In the unlikely event that the course is cancelled, we will refund the registration fee and disclaim any further liability.

Terms and conditions
The rest of the our terms, the event cancellation policy and the terms and conditions are on our website, please visit ipi.academy/content/terms-and-conditions

Reviews

★★★★★

It was an enlightening course, and the speakers were so explanatory.

Stergios Kemidis
Head of R&D
ANFARM HELLAS S.A.
Nov 6 2024

★★★★☆

Speakers were very knowledgeable and openly shared their experience with the audience especially when asked about specific examples.

Natalia Harasimiuk
Associate Director
Fuji Film
Nov 6 2024

★★★★★

I enjoyed it. I came to the webinar knowing nothing about the process, and I got away with a lot of knowledge. I enjoyed the chat between Andreas and Dale during the presentation, sharing their experience and complementing each other, that was knowledge beyond videos and presentations.

Serge Batubenge
Mgr. Engineering
Regeneron Pharmaceuticals, Inc.
Mar 30 2023

★★★★★

It was very good, I was impressed, I would have loved to do this course in person but this was a good alternative. The speakers were very good, very knowledgeable but also good at teaching/ relating information. The presentations were easy to follow, it was useful to have the documents there to follow along as the speakers talked. All the content was relevant to the topic and occasional humus. I enjoyed the course and would recommend Management Forum to my colleagues.

Zhané Healey
Senior Laboratory Technician
Medical Engineering Technologies
Mar 30 2022

Run this programme in-house for your whole team

Coming to IPI Academy for your in-house training provides an all-inclusive service which gives you access to a wide variety of content, learning platforms and delivery mechanisms as well as your own personal training adviser who will work with you from the initial enquiry through to feedback and follow-up after the programme.

With over 600 trainers, all practitioners and experts across a huge range of fields, we can provide the training you need, where you need it, when you need it, and at a price which suits your budget. Our approach to tailored learning and development consists of designing and delivering the appropriate solution for each client.

For your FREE consultation and to find out more about how we can work with you to solve your training needs, please contact our training advisers:

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IPI Academy

IPI Academy is a training initiative of Falconbury and Management Forum; leading providers of industry training for over 30 years, based in the UK.

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