

> compounding & extrusion
> materials handling
> service

# >> Coperion know-how at your disposal: Seminars on Process Technology for Pharmaceutical Hot Melt Extrusion in 2021

## COURSE OBJECTIVES

- To provide process engineers and operation supervisors with an understanding of the fundamental and practical aspects of the design and operating mode of a ZSK twin screw compounder
- To update knowledge in the field of pharmaceutical hot melt extrusion

## DATES AND LOCATION

**SESSION 1** 

upon request

split in 3 parts with 3 hours each
8-11 am (Central European Time)

**MS Teams** via Coperion GmbH, Stuttgart, Germany Participants get access to this Coperion training channel via MS Teams

## SEMINAR FEE

EUR 1.330,- per trainee. This price will be charged plus VAT.

## ATTENDEES WILL RECEIVE

- Coloured Coperion textbook PROCESS TRAINING in Chemical and Reaction Technology in PDF
- Certificate upon completion of the course (PDF)

# INDIVIDUAL SEMINARS

In addition to the regularly scheduled classes in Stuttgart, Germany, courses can be held at your company's site.

Training contents can be modified according to your objectives. Having discussed your needs we work out a customized training schedule and pricing for you.

#### LANGUAGE

All courses will be held in English if there is no other predefinition.

## TRAINER

Johannes Donner, Dipl.-Ing. Process Engineer Special Applications Coperion GmbH, Stuttgart, Germany





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# >> Content. Seminar on Process Technology for Pharmaceutical Hot Melt Extrusion

# DAY 1

- Basic process knowledge in the field of pharmaceutical hot melt extrusion
- Self cleaning screw profile of twin screw extruders
- Development of the ZSK twin screw extruders
- Screw elements: layout and definitions
- Working principle of screw elements
- Compounding plants and comparison of different extruder systems
- Process stages inside of the ZSK
  - Feeding
  - Melting
  - Degassing
  - Metering
  - Screw tip design
- Materials for different applications
- General layouts for different applications

# DAY 2

- Process variables
  - Specific energy influence of rate and screw speed
  - Motor load (torque)
  - Temperature profile: influence of the various operating parameters
- Latest Coperion developments and insights in the field of pharmaceutical hot melt extrusion
- Interlocks
  - Interlock sequences
  - Start up sequences
- Scale-up
  - Methods to design a compounding line
  - Product properties
  - Interlock sequence
  - Specific energy
  - Melt temperature
- Trouble shooting
  - Operating window
  - Analysis of rate limitations
  - Torque limitations
  - Melting limitations
  - Vent limitations
  - Feed limitations
  - Pressure limitations

# CONTACT INFORMATION

 For more information about Coperion's seminars please contact:

 Udo Bode
 Anita Brcic

 Phone: +49 (0) 711 / 897-2379
 Phone: +49 (0) 711 / 897-3211

 udo.bode@coperion.com
 anita.brcic@coperion.com

Coperion GmbH, Theodorstrasse 10, 70469 Stuttgart, Germany, info@coperion.com, www.coperion.com