



# Industrial chocolate manufacturing: Practical introduction course 06.11. - 10.11.2023 PROGRAM

## Participant fee:

**2.950,00 €**

Reduced Participant fee  
(only for members of ZDS e.V.):

**2.360,00 €**

## Services included:

- Course documentation
- Refreshments: snacks and drinks
- Lunch and dinner at the ZDS refectory

## Your instructor:

Guillermo Geschwindner  
Dipl.-Ing. Food Technology,  
Technical Instructor Sugar Confectionery and Chocolate



## Questions?

For questions about the event  
our project assistants  
will be at your disposal.  
T. +49 (0) 212 / 59 61 - 32  
[seminar@zds-solingen.de](mailto:seminar@zds-solingen.de)

## Monday, November 6, 2023

### 09:30 Welcome - Cocoa liquor production

Theory Cocoa Processing: Cocoa cultivation and post harvesting processes

*ZDS*

Theory Cocoa bean processing:

- Cleaning, Roasting (bean, nib, liquor)
- Breaking, Wining
- Grinding to liquor
- Cocoa butter and powder

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**13:00 Lunch**

**14:00**

Practice Cocoa bean evaluation and processing:

- Evaluation of different cocoa beans
- Thermal pretreatment
- Breaking and winnowing
- Nib roasting
- Liquor grinding
- Cocoa butter production

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**17:30 End of the first day - optional dinner**

## Tuesday, November 7, 2023

### 8:30 Chocolate production

Theory Raw materials: Cocoa butter, cocoa powder, sugar, milk ingredients, flavor

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Theory Manufacturing of chocolate:

- Recipes
- Manufacturing of chocolate (mixing process, refining process, conching process)

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Theory Alternative chocolate manufacturing technologies

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Theory Emulsifiers

*Kasper Stranddorf, Palsgaard A/S*

**13:00 Lunch**

Practice Dark and Milk Chocolate manufacturing:

- Mixing, refining (5-roll refining), conching
- Chocolate production with alternative system Masterconch, Universal Conche and/ or Ballmill

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**17:30 End of the second day - optional dinner**



## Wednesday, November 8, 2023

### 08:30 Chocolate tempering

Practice Liquification of chocolate

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Theory Chocolate tempering, enrobing and cooling:

- Characteristics of cocoa butter
- Principles of tempering
- Commercial tempering equipments
- Evaluation of temper
- Enrobing technology and cooling

*Till Bäumer, SOLLICH KG*

Practice Chocolate tempering (Hand tempering, use of Sollich Turbotemper, evaluation of temper with a tempermeter)

*ZDS*

### 13:00 Lunch

Practice Chocolate tempering, moulding of tablets, hollow figures, enrobing technology

*ZDS*

17:30 End of the third day - optional dinner

## Thursday, November 9, 2023

### 08:30 Moulding technology

Theory Moulding technologies:

- Classic shell moulding
- Book moulding
- Cold stamping
- Hollow figures
- One Shot depositing

*Benjamin Fuhr, AASTED Germany GmbH*

Practice One Shot depositing and cold stamping  
Production of filled products

*ZDS*

### 13:00 Lunch

Theory Vegetable fats for compounds and fillings

Practice Production of CBE and CBS compounds  
Production of fat filling

*ZDS*

17:30 End of the fourth day - Dinner

# Friday, November 10, 2023

<b>08:30</b>	<b>Start</b>
Theory	Food allergens in chocolate <i>Martin Mehl, R-Biopharm AG</i>
Practice	Production of chocolate shells, filling and sealing, compound moulding, finishing of all products <i>ZDS</i>
Practice	Tasting of produced products/ Final discussion <i>ZDS</i>
<b>13:00</b>	<b>End of the course - Lunch</b>

**- subject to alterations-**