



SILO TECHNOLOGY

15th + 16th of September 2025

The seminar starts with the registration of the participants from 11.30 a.m. to 12.00 p.m., so that you can arrive comfortably. We will start with a lunch together. The first seminar starts at 1.00 p.m.

The topics of the first day are:

- > Flow properties of bulk solids (flowability, wall friction, time consolidation,...)
- > Stresses in silos
- > The most common problems in silo operation
- > Silo design for flow according to Jenike's approach

We will round off the first day in Hamburg with a guided tour of the city.

The second day includes the following topics:

- > Practical measurement (live) and evaluation of flow properties with the Schulze ring shear tester (ASTM D6773)
- > Joint exercises: Arching/mass flow determination
- > Silo geometries
- > Correct design of silo discharge
- > Silo discharge devices
- > Insights into DIN EN1991-4
- > Silo buckling
- > Pressures and volume flows in the silo headspace

The seminar ends on time at 5.00 p.m., so that those who do not take part in the pneumatic seminar can return home as planned.

SPEAKERS

Dietmar Schulze, Prof. Dr.-Ing.

studied mechanical/process engineering at the Technical University of Braunschweig where he completed his PhD in 1991. With Prof. Jörg Schwedes, he founded the consultancy 'Schwedes + Schulze Schüttguttechnik' in 1991, and in 1993 the predecessor of 'Dr Dietmar Schulze GmbH'. From 1996 to 2022, he was Professor of Mechanical Process Engineering at the Ostfalia University of Applied Sciences in Wolfsburg.

Martin Kaldenhoff, Dr.-Ing.

studied civil engineering at the University of Hanover, 1991 to 1992 engineering office Dr. Binnewies, Hamburg (structural design), 1993 to 1998 research assistant at the Institute for Steel Construction, TU Braunschweig, then employee, later partner in the engineering company Prof. Hering, Hartenberger, Wienecke + Partner, Braunschweig. Since 2009 HHW Gesellschaft Beratender Ingenieure mbH in Braunschweig.

Mario Dikty, Dipl.-Ing.

studied process engineering at the University of Hamburg. 2001 to 2009 Product Line Manager at Claudius Peters Technology for silo and pneumatics, then Head of Processing for these divisions. 2011 to 2022 Head of Processing at KREISEL GmbH & Co. KG. 2023 Takeover of the engineering company Schwedes + Schulze Schüttguttechnik GmbH.

Peter Hilgraf, Prof. Dipl.-Ing.

studied apparatus and plant engineering in Hanover. After four years as a development engineer at Körting AG, he moved to Claudius Peters AG, Hamburg (now: Claudius Peters Projects GmbH GmbH, Buxtehude). Since 1974, he headed various research and development departments in the fields of bulk material handling, pneumatic conveying, silo technology and PCI technology.

PNEUMATIC CONVEYING

17th + 18th of September 2025

The seminar begins with the registration of participants in the "Pneumatic conveying" seminar from 8.30 a.m. to 9.00 a.m.

The topics of the first day are:

- > Basics of pneumatic conveying (pressure loss calculation, minimum initial conveying gas velocity, Boyle-Mariotte, ideal gas law, mixing temperature)
- > The standard feeding devices – how do the systems work and when is which system used (pressure vessel, jet feeder, rotary valve, screw pump)
- > Joint exercises

We will end the day in Hamburg with a harbour tour.

The next day will include the following topics:

- > Bulk material classification by type of Geldart
- > Fluidising bulk materials (live)
- > Airslide conveying
- > Pressure generator vs. factory network
- > Troubleshooting of pneumatic conveying systems – what is the problem?
- > Optimising existing systems (energy reduction, wear reduction, performance increase) – what – why – how!

The seminar ends at around 4.30 p.m., so that a scheduled return journey is guaranteed.



EVENT LOCATION

Madison Hotel GmbH

Schaarsteinweg 4, 20459 Hamburg

tel. +49 (0)40 37666-0

Hotel reservation: reservierung@madisonhotel.de

(Please state the keyword "Schwedes und Schulze" when making your reservation in order to benefit from the special conditions)

SEMINAR REGISTRATION

Schwedes + Schulze Schüttguttechnik GmbH

Teichstraße 4

21641 Apensen

seminar@schwedes-und-schulze.de

tel. +49 (0)176 23618669

PARTICIPATION FEE

Silo technology:	1,450 EUR
Pneumatic conveying:	1,750 EUR
Silo technology + Pneumatic conveying:	2,900 EUR

If a registration is cancelled by 31st of July 2025, the course fee will be refunded minus a processing fee of 150 EUR. In the event of a later cancellation a refund is not possible but another person can be nominated at any time.

Dr. Dietmar Schulze GmbH has been developing and producing testers and software for measuring flow properties of powders/ bulk solids and for silo design for flow since more than 30 years. The main products are automatic ring shear testers (ASTM D6773), which are used to measure, e.g., compressive strength, internal friction, wall friction, time consolidation (caking), flowability, and compressibility. Applications of the ring shear testers include measurements for characterisation, optimisation, product development, quality control, comparative tests, and silo design. The CAHD (computer-aided hopper design) software supports engineers in designing silos for flow according to the approach of A. W. Jenike.

Schwedes + Schulze Schüttguttechnik is an engineering company that analyses bulk solids and solves problems in the fields of bulk solids handling, silo technology and pneumatic conveying. The focus of the work is silo design for flow. Based on measured flow properties and the hopper design approach derived by Jenike, the optimum silo design is obtained in order to achieve mass flow, avoid problems such as arching, and reduce segregation. Also the measurement of the bulk solids parameters according to EN 1991-4 for structural silo design is part of the scope of supply. Another focus of the work is the design of pneumatic conveying systems including energy and process optimization. With over 1,100 dimensioned pneumatic conveying systems, a broad spectrum of experience is available.

HHW Consulting Engineers Ltd. is an engineering company specialized in industrial and tank construction. The company can look back on over 30 years of experience in silo, tank and pressure vessel construction (DIN 1055-6, EN 1993, AD2000, EN 13445). In addition to professional structural design, the company also offers professional damage assessment. Dr. Kaldenhoff is a member of the subcommittee of DIN EN 1991-4 and 1993-4-1.



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Our upcoming seminar days in Hamburg
from 15th to 18th of September 2025

SILO TECHNOLOGY &
PNEUMATIC CONVEYING

Book a seminar or both –
choose what interests you!



Seminar language: English

