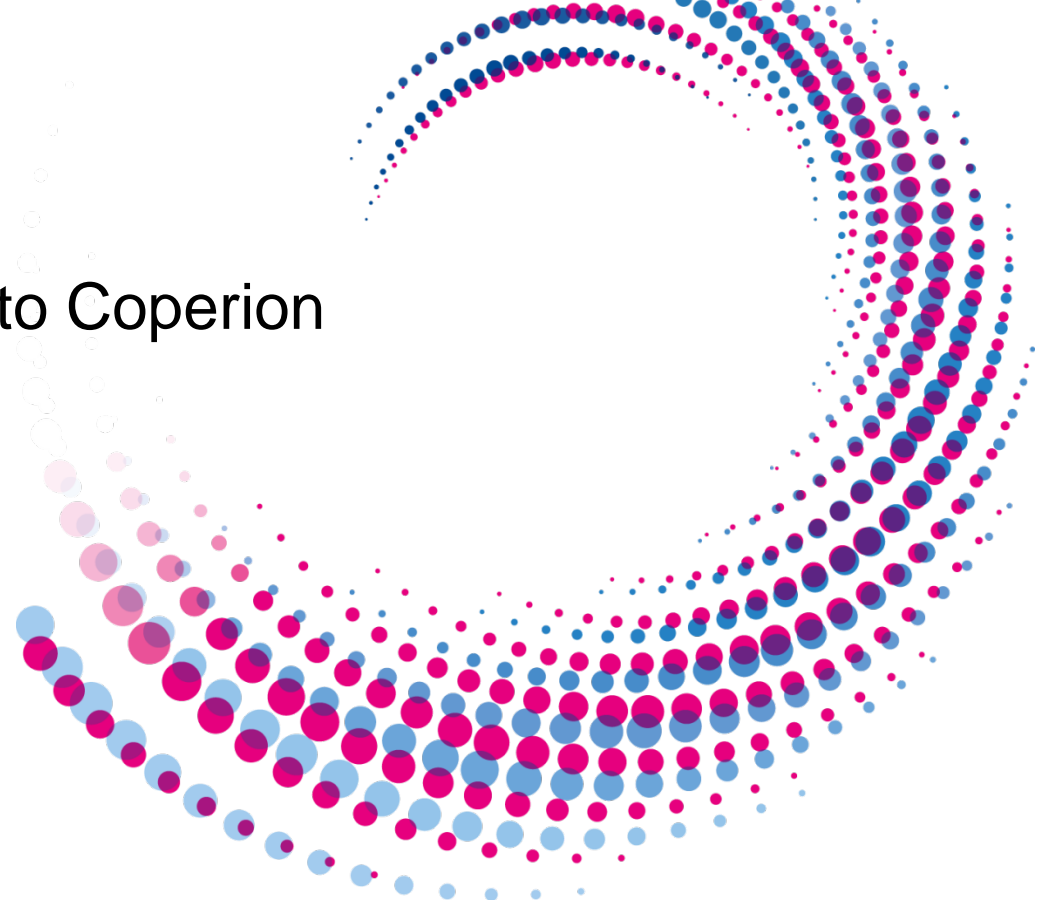


EXTRUSION DAYS BATCH-TO-CONTI



Welcome and Introduction to Coperion

Ulrich Bartel, Dipl.-Ing.
Division President, Compounding and Extrusion



Hillenbrand, Inc.



HILLENBRAND



Batesville

coperion

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confidence through partnership

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coperion
K-TRON



Red Valve Company, Inc.

ABEL[®]
Pump Technology

TERRASOURCE[™]
GLOBAL

ROTEX[®]

Customized solutions are our
response to complex
challenges.



confidence through partnership

Coperion is the worldwide market and technology leader in Compounding & Extrusion, Feeding, Materials Handling and Services – and a reliable partner for global corporations and small and medium-sized enterprises in the plastics, chemical, minerals, food and pharmaceutical industries.

»» Business Areas of Coperion



compounding & extrusion

ZSK, STS and CTE – three letters embody modern processing machinery and plant design for compounding technology. Our twin screw compounders continually set new standards in the plastics, chemical and food processing industries.



feeding & weighing

Coperion K-Tron specializes in feeding and weighing solutions for any process – accurate down to the last detail, able to handle a variety of bulk materials in a variety of applications.



materials handling

Hand in hand – we master all process steps in the treatment and handling of bulk materials. Quality is our benchmark when conveying, elutriating, homogenizing, storing, dosing, thermally treating or packaging products.



service

Your success is our success – already during installation and commissioning of a machine or plant a service team is on-site. Maintenance, spare parts service, service consulting, training and modernization – we use our experience and competence to the advantage of our customers.





Facts and figures

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30 LOCATIONS

2,500 EMPLOYEES





10,000

BULK MATERIALS HANDLING
PLANTS INSTALLED

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14,000
COMPOUNDING SYSTEMS
INSTALLED





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20,000

FEEDING SYSTEMS
INSTALLED



>> The Coperion Network



- Headquarters
- Coperion and Coperion K-Tron companies and sites

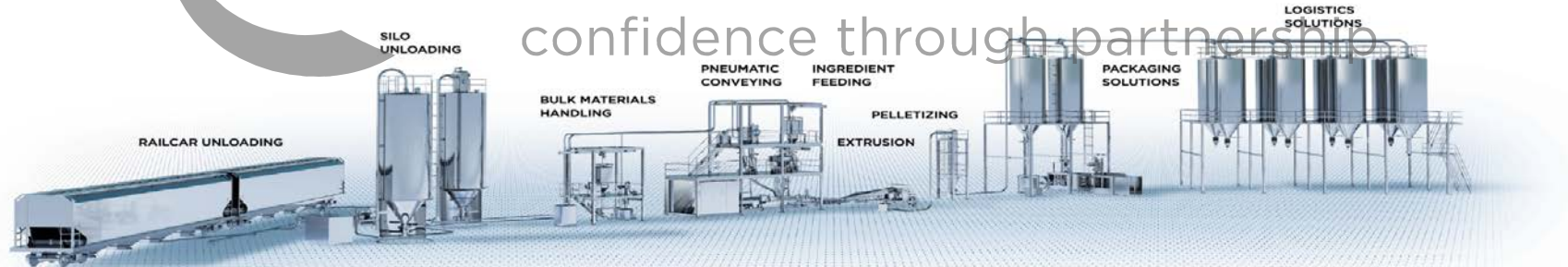
plus over 150 representatives worldwide



Product Range



- Bulk materials handling plants and logistic solutions
- Feeding and weighing solutions
- Compounding machines & extrusion systems
- Pelletizing systems
- Bulk materials components and special process components



»» Our promises become
guarantees. confidence through partnership

Research and Development Extrusion & Feeding



- Test labs in Stuttgart (D), Niederlenz (CH), Pitman (USA), Nanjing (CN), Shanghai (CN)
- A total of 30 extrusion systems permanently available for testing – from laboratory extruder ZSK 18 MEGALab to ZSK 70
- Throughputs ranging from 1 kg/h to 2 t/h
- All feeding equipment available, from volumetric feeders, loss-in-weight feeders, weigh belt feeders and low-rate micro-ingredient feeders to pelletizing systems
- Laboratories for real-time analyses of product quality

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Stuttgart (D)



Nanjing (CN)



Pitman (USA)



Niederlenz (Switzerland)



Wuxi (CN)



Research and Development Materials Handling

- Test labs in Weingarten (D), Niederlenz (CH), Pitman (USA), Salina (USA) and Shanghai (CN)
- Several conveying systems for dilute phase and dense phase conveying
- Archive with more than 10,000 product samples
- Laboratories for fast analysis of product characteristics and behavior
- More than 50 conveying, blending and separating systems for testing bulk solid properties, such as flow functions, conveying factors, filtration data, wall friction, time and moisture effects, particle shape, size and critical dimensions

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Weingarten (D)



Niederlenz (Switzerland)



Pitman (USA)




Salina (USA)



Wuxi (CN)





» Compounding &
Extrusion key
components

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»» Barrels



ZSK 18 - 420
with 45 different barrel types

2,900 design variants

1,800 CNC measuring programs

1,900 CNC machining center
programs

»» Screw Elements



For ZSK, Conti, ZS-EG
and ZS-B 18 - 420, 79 types

11,800 Variants
(material and geometry dependent)

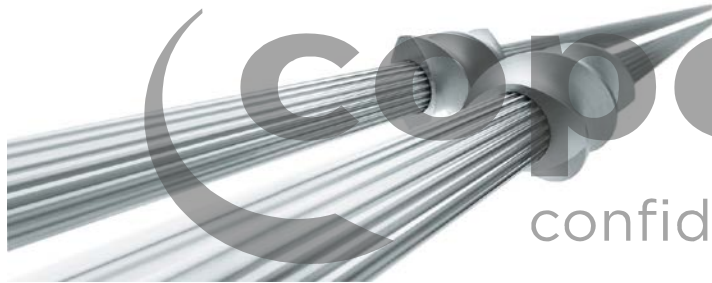
4,800 CNC programs for the
manufacturing of profiles

>> Shafts



For ZSK18 - 420, 84 types

2,400 Variants
(material and geometry dependent)



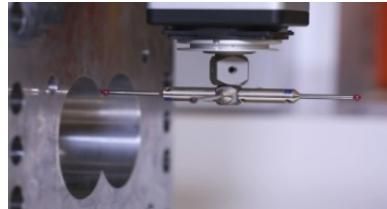
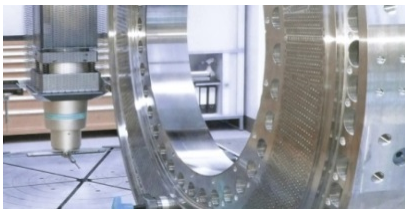
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»» One Worldwide Quality Standard



Methods to ensure the quality:

- ISO 9001:2015 certified
- 3D measuring of barrels and die plates
- Welding and surface quality check - non destructive examination
 - Dye penetrant test
 - Magnetic particle
 - Radiographic inspection (external)
- Hardness testing
 - Vickers hardness test
 - Brinell hardness test
 - Rockwell hardness test
- Flow water testing for the patency of the heating circuit
- Hydrostatic pressure test



Thank you very much for your attention!



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