

EXTRUSION DAYS BATCH-TO-CONTI

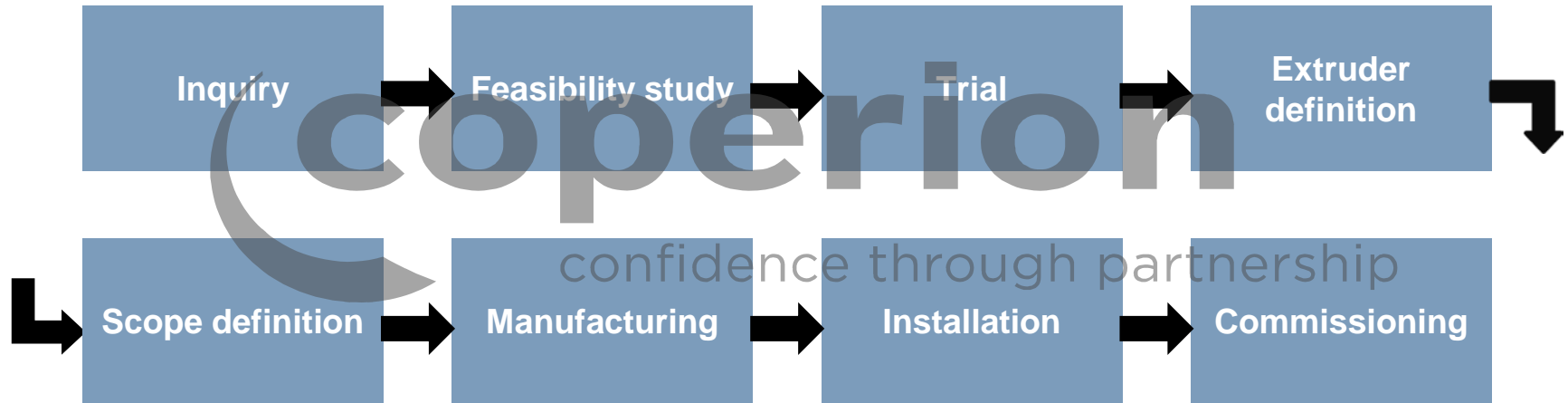


From Inquiry to start-up Your project journey with Coperion

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Project Journey



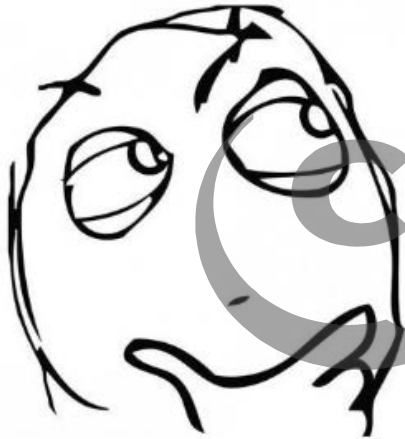
Project Journey – Inquiry



Minimum requirements for an inquiry

- Type of raw materials (with MSDS)
- Rough formulation(s)
- Process requirements, e.g. reactive extrusion, degassing, dispersion
- Corrosion or abrasion expected
- Product handling, e.g. pelletizing, drum filling, direct extrusion
- Limitations e.g. material temperature
- Required capacity

Project Journey – Feasibility Study



Eingruebler.Wordpress

- Can we handle the raw materials?
- Do we need to consider special protection, ATEX, Dust proof?
- Viscosity to be expected?
- Do we know the process or is it similar to others?
- Do the requirements tally with the technology available?
- MEGAcoupler or MEGAvolume
- Are we able to run tests in our test centre?
- Internal investigation and discussion with the customer experts

Project Journey – Trials in Stuttgart



- Pre-selection of machine size ZSK 18 - 70 for Mc; 27 - 76 for Mv
- Definition of the required amount of test material
- Extruder for trial set-up as close as possible to the expected production line set-up
- Process development during the test:
 - Barrel set-up
 - Feeding points
 - Number of degassing
 - Screw configuration
 - Product handling
- If possible sample evaluation in Coperion Laboratory for further process optimization
- Even trials with hazardous materials are possible after Coperion internal risk assessment



Project Journey – Definition of the Extruder



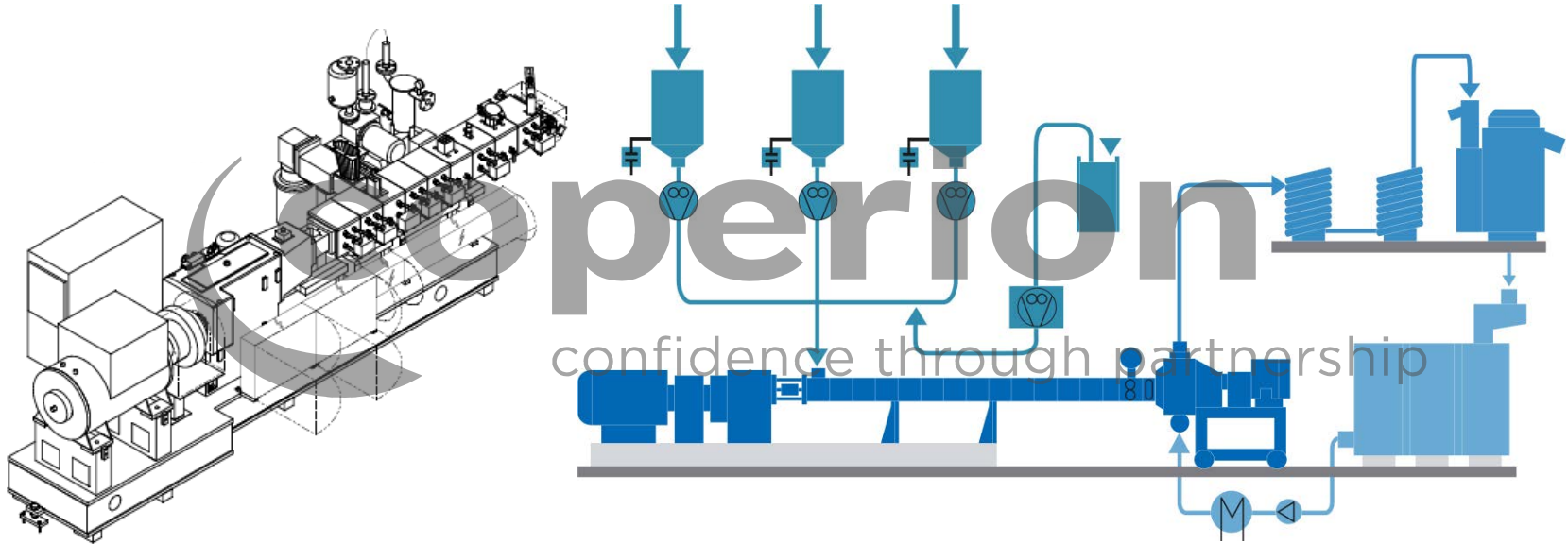
Produktzugabe: Polyester, Additive

ZSK 45 Mc18
 Md/a² [Nm/cm²]: 8,9
 n [1/min]: 600
 n bei Feldschw.: 800
 P VT [kW]: 58,8
 P Mot [kW]: 61,7

CST Customer

Gehäuseabstützung	<input checked="" type="checkbox"/> auto															
Gehäuseart	Einlauf	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Geschlossen	Endplatte	8 - 0	
Gehäusewerkstoff	015-043	015-043	015-043	015-043	015-043	015-043	015-043	015-043	015-043	015-043	015-043	015-043	015-043	005-002		
Teilenummer (S03xxx)	4045	4037	4037	4037	4037	4037	4037	4037	4037	4037	4037	4037	4037	1039		
Werkstoff Schnecken Elemente	25	25	25	25	25	25	25	25	25	25	25	25	25	25		
Produktbohrung Oben	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	=>	mittig	
Messung / Einsprühdüse oben														Stopfen	Mat.-Druck	
Beschreibung																PM
Lieferung durch																CST
Reduzierbüchse																ASA 1/2"
Produktbohrung Unten	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	=>	mittig	
Messung / Einsprühdüse unten														Stopfen	Mat.-Temp.	
Beschreibung																TM
Lieferung durch																CST
Reduzierbüchse																ASA 1/2"
Gehäusetemperierung Zone	<input checked="" type="checkbox"/> auto	Keine	T_G2	T_G3	T_G4	T_G5	T_G6	T_G7	T_G8	T_G9	T_G10	T_G11	T_G12	Keine	T_8/0	
Lieferung durch		CST	CST	CST	CST	CST	CST	CST	CST	CST	CST	CST	CST		CST	
Isolierplatte oder Abdichtung stromab	<input checked="" type="checkbox"/> Isolierplatte	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	Ohne	
Beheizungsart	Ohne	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Elektrisch	Ohne	Elektrisch	

Project Journey – Definition of the Scope



Project Journey – Equipment Installed



Project Journey i-clean



i-clean
TECHNOLOGIES



Inquiry:

- Production of an alkaline cleaning paste for industrial ovens and coffee machines
- Exothermic reaction and mixing
- At this moment i-clean produced with a Lab stirrer directly in the cartridge



Project Journey i-clean



Set-up for the trial in Stuttgart

coperion		Trial Nr.	Sheet	Customer	Extruder	Process	Material	Name	Date
		13276	1	i-clean	ZSK26Mc	Mixing / Reaction of Cleaning paste		Fiedler	26.02.2016

Zone	T_G2	T_G3	T_G4	T_G5	T_G6	T_G7	T_G8	T_G9	T_G10	T_G11	T_G12
Barrel heatstable	x	x	x	x	x	x	x	x	x	x	x
Heating	el.	el.	el.	el.	el.	el.	el.	el.	el.	el.	el.
Cooling	H2O	H2O	H2O	H2O	H2O	H2O	H2O	H2O	H2O	H2O	H2O
Meltpressure [bar]											200
Melttemperatur [°C]											350
Vacuum level [mbar]											
Vacuum volume [m³/h]											
Remarks											

Trial in Stuttgart on a ZSK 26 Mc



Thank you very much for your attention!



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