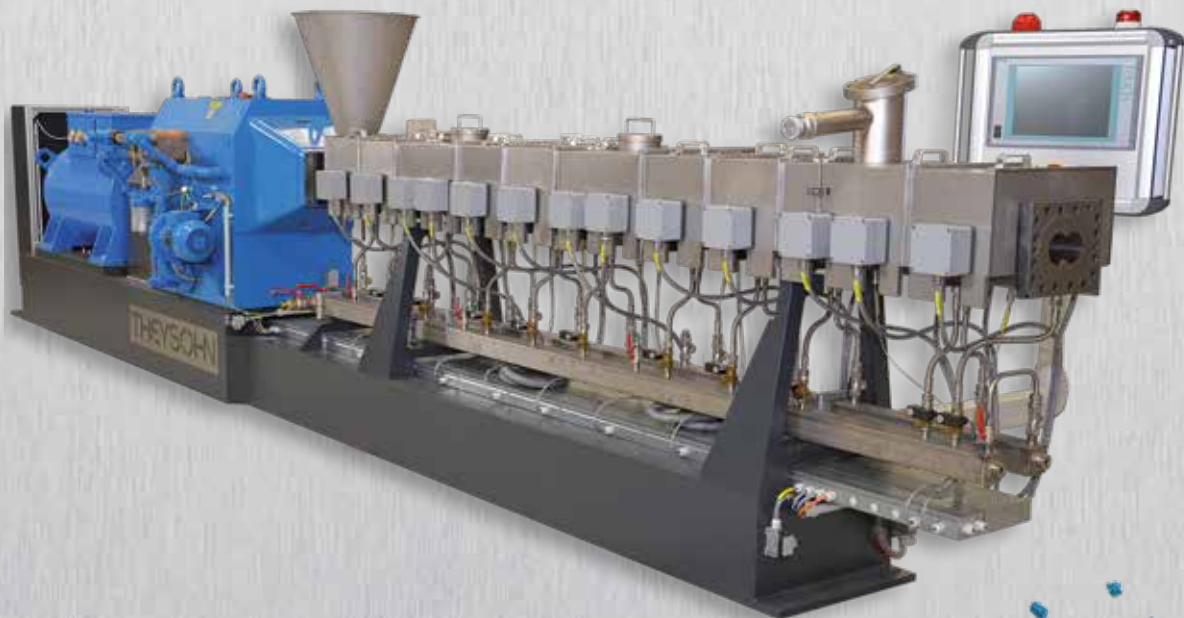
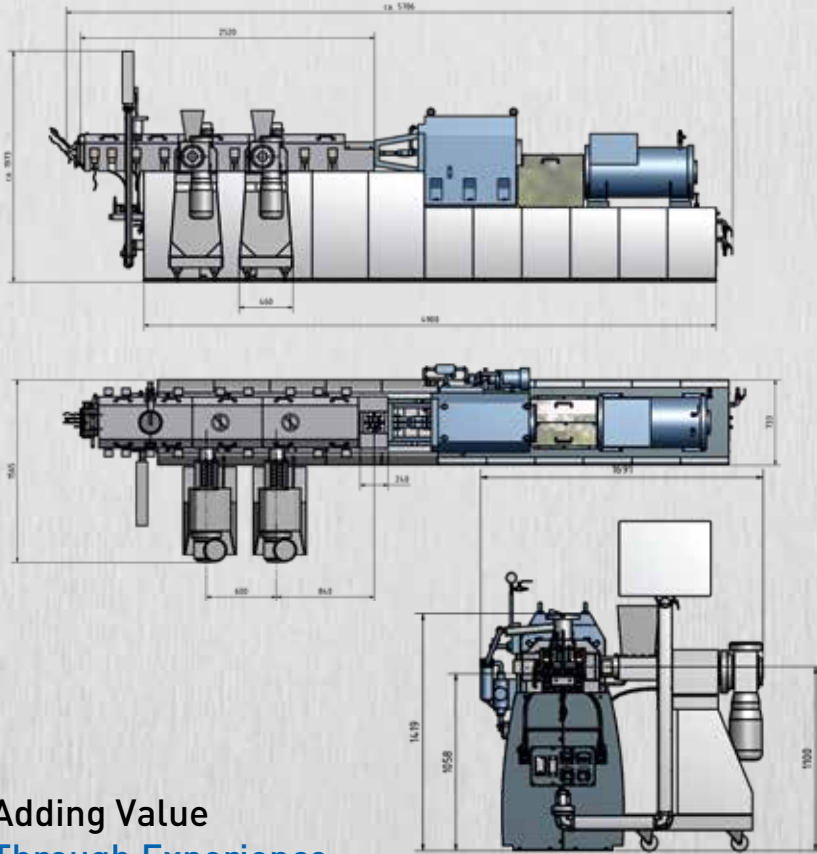


THEYSOHN Compounder TSK





Adding Value Through Experience

The Theysohn group offers the TSK series of co-rotating twin-screw compounders, which have built and developed solutions for customers worldwide for many years, based on our extensive experience.

Theysohn TSK is THE competence-centre with their two distinctive technologies, firstly the standard TSK high-torque series for standard and high-torque applications, and secondly the TSK-HV (high volume) series. This high-volume series for shear-sensitive materials and also applications with low bulk density feeds is the highest volume machine in the market with a Do/Di ratio of 1.83.

Additionally the series TSK-PCE is specially designed for the production of powder-coatings. Based on its special design it is the perfect machine for output, quality and flexibility. Special features are its extremely efficient barrel cooling, a horizontal split barrel design and internal screw cooling.

The THEYSOHN Compounder Universally Applicable

Its advanced and proven technologies enable the Theysohn compounder to handle all compounding operations:

- filled and reinforced plastic
- additives and color masterbatch
- alloying of plastic
- degassing of plastic
- reactive extrusion
- powder coatings
- food extrusion





Technical Data THEYSOHN Compounder TSK

Model TSK	ø (mm)	max. torque/shaft (Nm)	torque factor (Nm/cm ³)	max. screw speed (min ⁻¹)	max. motor power (KW)*
20	20	40	9	1000	9
32	32	270	15	1200	70
37	37	450	16	1200	115
45	45	800	16	1200	200
60	60	2000	16	1200	560
75	75	4200	17	1200	1100
90	90	7000	17	800	1275
105	105	10000	16	600	1400
120	120	15000	15	500	2000
140	140	23000	15	450	2180
160	160	35000	15	400	3090
175	175	42000	12	400	3400
200	200	55000	12	300	3500

*installed drive power depending on the process task.

* Further torque values on request

Technical Data THEYSOHN High Volume

Model TSK-HV	ø (mm)	max. torque/shaft (Nm)	torque factor (Nm/cm ³)	max. screw speed (min ⁻¹)	max. motor power (KW)
45	48	550	10,4	1200	140
60	64	1300	10,4	1200	345
75	80	2550	10,4	1200	640
90	96	4400	10,4	800	770
105	112	6850	10,4	600	900
120	130	10700	10,4	500	1200
140	150	16500	10,4	450	1600
160	171	24500	10,1	400	2000
175	188	30500	10,4	400	2500
200	214	39300	10,4	300	2500

TSK-PCE

Powder Coating Extruder

For compounding of powder coating formulations we have engineered a new range of TSK-PCE machines with many new features. For example a high feed intake capacity combined with intensive barrel and screw cooling.



- specially designed feed port with intake pocket
- high volume geometry
- screw cooling from model PCE048 onwards
- intensive barrel cooling
- processing unit in clamshells design, with fully opening barrel halves
- closely self wiping/cleaning screw profile
- high screw rpm
- high torque factor at highest free volume



Technical Data

THEYSOHN Powder coatings extruder

Model PCE	ø (mm)	Do/Di (1)	max. torque/shaft (Nm)	max. screw speed (min ⁻¹)	max. motor power (KW)
20	20	1,60	40,0	1000	9
48	48	1,85	450,0	1200	120
55	55,6	1,83	550,0	1200	145
64	64	1,83	1300,0	1200	345



THEYSOHN Extrusionstechnik

Not only connoisseurs, but masters!

Many companies claim they can build perfect components for extrusion lines, but what about the perfect interaction of these components operating as a whole? THEYSOHN understands the entire extrusion process technology, and aligns the individual components to precisely harmonize with each other.

THEYSOHN relies upon its longstanding experience in extrusion technology and on the basis of its competence centers, THEYSOHN has the expertise required to support customers in designing and building complete production lines and in taking full responsibility on the customers behalf.

THEYSOHN provides you with comprehensive support and can also deliver turnkey facilities, whether your needs involve engineered plastics, masterbatch, thermoplastic elastomers, food extrusion or powder coatings.

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Compounder TSK

Optimal self-cleaning of screw elements and narrow residence time distribution

The THEYSOHN compounder can be delivered in a wide range of sizes. All of them feature tightly intermeshing co-rotating twin-screw elements. This enables an optimal rate of self-cleaning by the screw elements and a narrow residence time distribution.

A wide and diverse range of screw elements has been created in order to enable the compounder to handle a wide range of processing tasks. The screw elements are arranged to meet the requirements of the process at hand, and can be delivered in abrasion, adhesive and corrosion resistant materials comprising of hardened and HIP composite steels.

The selection of wear protection depends on the nature of the processing task.

Screw shafts and elements display the most precise production tolerances and

join together with the selection of high performance wear materials in enabling the transmission of high torques and screw speed.

Processing unit

THEYSOHN offers a range of barrel sections, optimally facilitating all applications. The barrel section is designed to handle the process in which they will be deployed, and are securely bolted together with flanges. The design has the tightest manufacturing tolerances, which guarantees the absolute sealing security of flange surfaces. Available in closed, feeding and degassing models of 4D, 6D and 8D lengths.

The barrel section features shrinked in liner which is manufactured from powder metallurgical material and a high performance internal cooling system.

This design guarantees a perfect and precise tempering, rapid heating and efficient cooling. These features lead to a higher rate of plant operating efficiency.

Drive and transmission unit

The main drive of the THEYSOHN compounder is fitted with a high quality DC or AC motor produced by renowned manufacturers. The high performance and highly compact transmission unit is connected to the drive via a mechanical overload clutch.

Control system

A Siemens PLC forms the basis of the proven control system forming the control heart of the THEYSOHN compounder. This system features screens enabling the visualization, selection and reading of all processing parameters.

An archiving system enabling the storage to an external media which is also available on request. Key process values are displayed as trend graphs.