



C.W. Brabender®  
INSTRUMENTS, INC.

## TSE 20/40 EC Self-Contained Twin Screw Extrusion System

The Stand-alone TSE 20/40 EC Extruder is a self-contained twin-screw extrusion system. The self-reliable unit is equipped with a 5.2kW inverter drive. The advantage of the integrated motor, allows the system to reach a higher rotary speed (max. 600 rpm) than a Twin Screw Extruder powered by a drive-unit. The design and persuasive features make the TSE 20/40 EC Extruder a perfect solution for laboratory applications.

The unit utilizes the latest technology in CAN Field-Bus data communication. The Stand-alone Extruder TSE 20/40 EC is part of a new generation of compounding systems that will offer a high degree of operating reliability for the compounding of various polymers.

The processing unit is a clamshell design with segmented screws. The modular screw design enables the operator to optimize the compounding application by utilizing various kneading, mixing, and shear elements of the screws. The segmented screw elements are interchangeable and can be realigned to adapt to a specific application.

The Stand-alone TSE 20/40 EC is ideal for the following tasks: incorporation of solid or liquid additives and pigments into polymers -- filling, reinforcing, alloying, and modification of thermoplastics and elastomers -- regeneration of polymer -- degassing of volatile matter with or without vacuum -- continuous reaction of polymers and other materials...

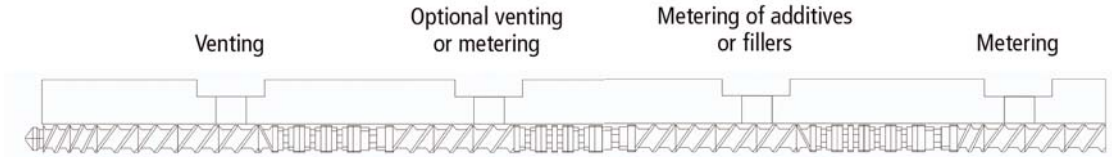
Stand-alone  
TSE 20/40 EC



- 20mm Parallel
- Clam Shell Barrel
- Co-rotating
- Segmented Screw Elements
- Side Feeding Ports
- CAN Bus Communication

# Stand-alone TSE 20/40 EC

TSE 20/40 EC  
Blending of a polyphenylene oxide



## Technical Data

The TSE 20/40 EC is available with barrel lengths of 20 or 40 D. Metering and/or venting ports are located at 10 D, 20 D, and 30 D with side feeding capabilities (12 D and 22 D). Furthermore, the barrel of the TSE 20/40 EC is divided horizontally and can be tilted open on both sides. Allowing visual assessment of individual processing steps. Ideally suited for Research and Development applications.

Screw Diameter	Screw Length L:D	Flight Depth	Drive Power	Screw Speed (min <sup>-1</sup> )	Screw Torque	Operating Temperature
20mm	24,40	3.75mm	5.2 kW	600	2 x 40 Nm	400 °C

## Nominal Throughputs (kg/h)

Compounding and stabilizing of HDPE	9-15
Filling, incorporation of 40% talc in PE powder	9-15
Reinforcing, incorporation of glass fibers (33%) in PA 6.6	9-12
Production of masterbatch in LDPE, HDPE, PP, PS, PA	10-20

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- Graphic Interface
  - Alarms - Temperature - Pressure - Auxiliary Speeds
- Protocol Storage
- Data Logging
  - Temperature - Pressure - RPM - Auxiliary Speeds