



Cell Culture Exposure System

For Aerosol, Cigarette Smoke and Vapor Applications

Contents

■ Cell Culture Exposure System	3
■ Exposure Units for Cell Cultures	4
■ Cigarette Smoke Generator – 2 Ports	5
■ Product Overview	6

– Specifications subject to change without notice –



Cell Culture Exposure System

Crucial tool for in-vitro studies

Cell Culture Systems are finding increasing use in inhalation studies. The **TSE Cell Culture Exposure System** offers an efficient, user-friendly tool for supplementing and amplifying inhalation research programs.

- Time-saving and favorably priced procedure for screening tests with tissue materials
- For connection of TSE aerosol or vapor generators – special solutions on request
- Adapted cigarette smoke generator for cell cultures – enabling a reduced smoke concentration, crucial for cell culture exposure
- Simultaneous exposure of cell cultures in two separate exposure units via one aerosol generator
- Different substance concentrations in the exposure units in combination with the multi-stage dilution system





Exposure units for cell cultures

Units suitable for quick screening

- Cell culture exposure units for a uniform aerosol, cigarette smoke or vapor dispersion
- Each exposure unit is suitable for 12 up to 48 Transwell® wells
- Exposure of the wells, via an internal flow plate for equal and consistent dispersion
- Special chemical-resistant exposure units for use with vapors
- Minimizing of tubing enables concentrated exposure of the cell cultures
- Unique, rotational feature of the smoke input point enables dynamic mixing of the chamber air
- Humidification and integrated heating, for longer viability of exposed cell cultures

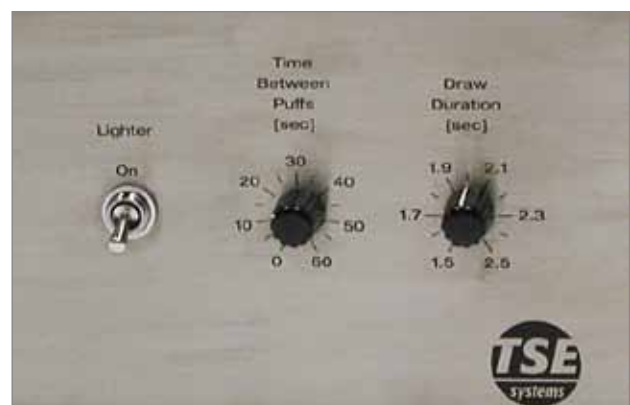




Cigarette Smoke Generator – 2 Ports

Smoke generation for small exposure units

- Cigarette Smoke Generator with 2 ports for toxicological and analytical studies
- Mainstream and sidestream smoke can be extracted for research purposes
- Automatic puffing with semi-automatic igniting of the cigarettes
- For use with commercial cigarettes as well as research cigarettes of different sizes and diameters
- Cigarettes can be smoked according to protocols such as ISO 3308:2000, puff timing and volume can also be adjusted
- Usable with all cell culture systems as well as Whole Body or Head Nose Only Exposure Units with small volumes



Product Overview

This overview illustrates additional products which are supplied by TSE Systems, detailed information concerning each of the items listed below can be found on our website, for any additional information please do not hesitate to contact us:

■ **Behavior**

Conditioning, Activity & Exploration, Video Tracking, Mazes, Startle Response, Anxiety & Depression, Motor Function & Performance, Rotameter

■ **PhenoMaster / LabMaster**

Calorimetry, Drinking & Feeding & Body Weight, Home Cage Activity, Running Wheel

■ **NewBehavior Products**

IntelliCage (cognitive screening for up to 16 mice living in a social group in a home cage environment)
NeuroLogger (4 channels wireless EEG recording & activity)

■ **Kinematic Analysis**

MotoRater (evaluation of locomotor functions using high-speed video tracking: Ladder / Walking / Wading / Swimming)

■ **Analgesia**

Hot Plate, Tail Flick, Randall Selitto, Power Meter (Incapacitance Tester)

■ **Physiology**

Blood Pressure Monitoring – invasive & non-invasive, Telemetry, Volume Meter
Bronchospasm Measuring

■ **Inhalation**

Head Nose Only, Whole Body and Cell Culture Exposure Units, Aerosol Generation & Conditioning
Aerosol Analysis, Inhalation Software, Cigarette Smoke Generators

■ **Stereotaxic Instruments**

■ **Isolated Organs**

Organ Bath Systems, Langendorff and Working Heart Systems

■ **Microtomes**

Krumdieck Tissue Slicer

■ **Pumps & Infusion**

Syringe Pumps, Animal Infusion Systems

■ **Surgery & Handling**

Operating Tables, Homeothermic Blankets, Temperature and ECG Pads



TSE Systems is a leading supplier of sophisticated research instrumentation in the global life science market. Our focus is on providing the total customer solution, with modular designs of integrated hardware and software platforms for neuroscience, metabolic and behavioral phenotyping, drug screening and toxicology.

For further information please contact us.

**North America
Headquarters**

TSE Systems, Inc.
17826 Edison Avenue
Chesterfield, MO 63005
USA

Phone: +1-636-536-6502
Fax: +1-636-536-0840

Toll-Free (USA / Canada)
Phone: +1-866-466-8873
Fax: +1-866-467-8873

**European / Asian
Headquarters**

TSE Systems GmbH
Siemensstr. 21
61352 Bad Homburg
Germany

Phone: +49-(0)6172-789-0
Fax: +49-(0)6172-789-500

India

Axiom Biotek, Inc.
Inc. Uniline House,
2nd Floor
198 / 23, Ramesh Market,
East of Kailash
New Delhi 110 065
India

Phone: +91-11-4657-9762
Fax: +91-11-2648-1469
E-mail: India@TSE-Systems.com



TSE_INH_Cell Culture Exposure System_20100929