

# Soxtec™ 2045 Fat Extraction System



*Solvent extraction system for fast, safe determination of soluble material in food, feed, soil, polymers, textiles, paper, pulp, etc.*

## Features and benefits

- Only ~15 ml of solvent used per sample with the recovery system
- Separate timer functions for each extraction step make programming and procedure conveniently repeatable
- Accessories for batch handling improve laboratory efficiency
- Official approvals AOAC 991.36 (meat), AOAC 2003.05, 2003.06 (feed), SCAN- CM 49:93 (paper / pulp), EPA method 3541 (PAH in soil)
- Large thimble size, 65 ml, extends application range

## System description

The Soxtec™ 2045 is designed for rapid, safe and economic extraction of solid and semisolid materials. This has been achieved by applying a patented version of the Soxhlet extraction technique.

The Soxtec System 2045 is an electrically heated solvent extraction system which is CE approved ac-

ording to the LVD and EMC Directives. It consists of an Extraction Unit and a Control Unit where the extraction unit must be installed in a well ventilated fume hood (air flow 0,5 m/s). It is designed for user convenience through handling of two samples at a time. The sample to be analyzed is weighed into thimbles and inserted in the Extraction Unit. After the 3-step extraction procedure consisting of boiling, rinsing and recovery, the extractable matter is collected in the cup.

The system is flexible and suitable for a wide variety of applications in the food, feed, environmental and industrial segments. It is designed to work with all common solvents used for solvent extraction (we do not recommend the use of Diethyl ether due to the explosion risk when handling it). Typical solvent recovery is 75%, only ~15 ml solvent is used per sample. Sample preparation prior to GC/HPLC work is also possible using a specially designed seal. The repeatability is equal to traditional technique (1% rel. or better).

**System description****Soxtec™ 2045 comprises:**

2045-001 Soxtec 2045, 230 V complete with  
 1 ea 2045 Extraction Unit  
 1 ea 2046 Control Unit  
 1 ea Food/Agri routine accessories kit  
 comprising:  
 Extraction cups (1 set of 2), cup holder, thimbles  
 (set of 25), thimble adapters (1 set of 6), thimble  
 stand, seals in viton and butyl, Manual and  
 Application Note AN 301.

2045-002 Soxtec 2045, 115 V. As above.

10007524 Thimble adapter, Ø 33mm (set of 6)  
 10001466 Thimble adapter, Ø 26mm (set of 6)

**Accessories:**

10011723 Cup holder  
 10007446 Thimble stand, Metal  
 10002290 Extraction cups (set of 2), aluminium  
 10002291 Extraction cups (set of 2), glass  
 10002705 Seals for condensers, viton (set of 2)  
 10002706 Seals for condensers, butyl (set of 2)  
 1090 Cemotec™ sample mill (food, feed prior to  
 moisture analysis)  
 1093 Cyclotec™ sample mill (food, feed general  
 applications)  
 2094 Homogenizer, blender type  
 1095 Knifetec™ (water cooled for high fat and high  
 fibre)

**In addition, we recommend:**

15220045 Cellulose thimbles, Ø 33mm (set of 25) single  
 thickness  
 15220030 Cellulose thimbles, Ø 33mm (set of 25) double  
 thickness  
 15220018 Cellulose thimbles, Ø 26mm (set of 25) double  
 thickness

**For total fat determination, used in conjunction with Soxtec™ Extraction Systems we recommend:****SoxCap™ 2047 comprises:**

- SoxCap 2047, 230 V, complete system for integrated boiling and filtration of samples and all accessories needed for acid hydrolysis of food and feed samples
- SoxCap 2047, 115 V. As above.

**Performance data:**

Thimble size:	33 × 80 mm, 65 ml	Capacity per day:	10-12 samples
	0.5 to 15 g depending on sample	Measuring range:	0.1-100% fat
Solvent volume:	60 ml	Accuracy:	According to official approvals
Extraction time:	typically 40 to 60 min, depending on application	Repeatability:	± 1% rel. or better at 5-100% fat
Capacity per batch:	2 samples	Heating up time:	from 20 to 285°C in 10 min (230V)

**Installation requirements:**

Equipment	Power supply	Power consumption	Dimensions w × d × h	Weight	Water supply	Ventilation
Extraction Unit	-	-	34 × 27 × 58	18 kg	1-2 l/min	Fume hood min. airflow 0,5 m/s (inter locked).
Control Unit	230 V, 50-60 Hz 115 V, 50-60 Hz	600 W	28 × 23 × 19	3 kg	-	-

\*Ordering information: Use the above specified Cat. Nos. together with the text.

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