

**Benchtop Rapid Extractor – FT110X**

The Armfield FT110X Benchtop Rapid Extractor is used to extract the active constituents from small (<1 litre) samples of materials.

This single piston pressure system gives rapid results from small volumes while giving flexibility to the operator with the processing parameters.

The three phases of operation are pressurisation, relaxation and dynamic percolation. This forces the solution into the biomass, dissolves the active ingredient and recovers the solution into a separate vessel.

**FAST RESPONSE, RESULTS IN HOURS  
DATA LOGGING**

**Features / benefits**

- ▶ Fast response. Results in hours rather than days
- ▶ Small scale, only one litre of raw material is required
- ▶ Simple cleaning and maintenance procedures
- ▶ Uses ethanol, glycerol, water or similar safe polar solvents
- ▶ Reproducible results
- ▶ Fast, efficient solid/liquid extraction of active constituents from plants, herbs, fruits and other similar materials
- ▶ Computer Controlled
- ▶ Data Logging
- ▶ Accurate scale up
- ▶ Remote Control via VPN
- ▶ Touch Screen Membrane Control Panel
- ▶ High pressure, room temperature extraction, excellent for sensitive material
- ▶ Unaltered natural properties and characteristics of the active constituents, no discolouration or oxidation
- ▶ Easy to use: microprocessor control and real time display of sequencing and process parameters
- ▶ Automatic pressure control
- ▶ Automatic alarm indication of process anomalies
- ▶ Highly flexible extraction parameters

## Description

The Armfield FT110X uses high pressure and a combination of both static and dynamic extraction phases to achieve a rapid extraction of the active materials with minimum degradation to the product. In the dynamic phases, the solvent is passed through the material providing a forced percolation and agitation.

The process pressure, number of cycles and length of each phase are programmable by the user. In this way the effect of the extraction parameters on the end product can be explored and an optimum set of parameters determined for each product.

The FT110X vessel is loaded with solvent and primed manually. A single pneumatic piston is used to generate the pressure in the vessel and to provide the solvent percolation using a novel system of valves.

## Applications

- ▶ Natural Food Flavours
- ▶ Fruit Flavours
- ▶ Herbs and Plant extracts
- ▶ Spirit liquors
- ▶ Tinctures and infusions
- ▶ Herbal extracts and homeopathy
- ▶ Cosmetics
- ▶ Pharmaceuticals

## Requirements

## Scale



- ▶ Electrical supply: Single phase (see ordering codes)
- ▶ Compressed Air (or N<sub>2</sub>) 8bar

## Ordering codes

- ▶ FT110X-A 220-240V/1ph/50Hz, 0.5 kW
- ▶ FT110X-B 115V/1ph/60Hz, 0.5 kW
- ▶ FT110X-G 220-240V/1ph/60Hz, 0.5 k

## Technical specifications

Vessel volume	0.5l, 1l, 2l
Total solvent capacity	1.2l
Maximum pressure	8 bar
Single piston	

## Overall dimensions

Length	0.55m
Width	0.35m
Height	0.55m

## Packed and crated shipping specifications

Volume	0.3m <sup>3</sup>
Gross weight	40Kg



FT110 Feed vessel

## High pressure extraction



## Knowledge base

- > 28 years expertise in research & development technology
- > 50 years providing engaging engineering teaching equipment

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An ISO 9001:2015 Company



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## Aftercare

Installation  
Commissioning  
Training  
Service and maintenance  
Support: [armfieldassist.com](http://armfieldassist.com)