# <u>armfield</u>

### **Research & Development Technology**



### Butter Churn and Butter Making Accessories – FT21/21A

The Armfield Butter Churn is designed to provide practical training in the preparation of butter by the traditional method.

MULTI-SPEED ELECTRIC MOTOR DRIVING PADDLE AGITATOR



#### **Process Capabilites**

- ▶ 'Phase inversion' of the oil/water emulsion which occurs in churning
- Investigation of process temperature and agitation time in the agitation process
- Production of butter by various methods for quality and analytical determinations
- Mass balance quantitative yield of butter from various types of raw milk

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#### Description

The metal churn paddle is electrically driven. A multi-speed electric motor is mounted on the side of the vessel, which drives the paddle agitator.

The paddle may be removed for cleaning. A batch of up to 5 litres of cream can allow production of more than 1kg of butter, and all of the important stages of this 'colloid inversion' process can be adequately observed.

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#### **Butter making accessories - FT21A**

The accessories have been selected to enable a finished product to be produced in conjunction with the butter churn.

The cream setting pan and dairy thermometer in combination will produce cream from 4 litres of milk. Depending on the fat content of the milk, approximately 0.5 litres of cream can be obtained from this and the minimum churn charge of 1 litre can be quickly separated. This can be used if no automatic cream separator such as FT15 (Disc Bowl Centrifuge) is available. Approximately 0.5kg of butter can be made from 1.5 litres of cream in the churn. During the churning process it is necessary to drain off the buttermilk and washing water, a sieve is provided to strain out any butter particles to be returned to the churn. Scotch Hands are required to 'work' the butter into a solid mass after churning. Water exuded during the working process is removed by the use of muslin cloth.

In order to carry out these processes, the following accessories are supplied:

- 1 x 4 litre capacity cream setting pan
- ► 1 x dairy thermometer
- 1 x nylon sieve
- 1 x pair of Scotch Hands
- 1 x roll butter muslin

Requireme	ents	Scale	
۶ 1Ph		<b>A</b>	
Electricity	supply:		
FT21-A:	220-240V/1ph/50Hz		

FT21-A:	220-240V/1ph/50Hz
FT21-B:	120V/1ph/60Hz
FT21-G:	220-240V/1ph/60Hz



FT21 with accessories



FT21 stainless steel churn with paddles and drain hole

Technical specifications		
Total churn volume	5 litres	
Batch Size	5 litres (max)	
	4 litres (suggested)	
	1 litre (min)	

## Overall dimensions

Length	0.50m		
Width	0.40m		
Height	0.50m		
Packed and created shipping specifications			
Packed and created shipp	ing specifications		
Packed and created shipp Volume	0.3m <sup>3</sup>		

#### **Ordering codes**

- ► FT15-A: 220-240V / 1ph / 50Hz
- **FT15-B:** 120V / 1ph / 60Hz
- ► FT15-G: 220-240V / 1ph / 60Hz

### Knowledge base

 > 28 years expertise in research & development technology
> 50 years providing engaging engineering teaching equipment
Benefit from our experience, just call or email to discuss your laboratory needs, latest project or application.



### Aftercare

Installation Commissioning Training Service and maintenance Support: armfieldassist.com