

The Armfield Cheese Vat (FT20) is a small-scale version of the industrial processing vessel in which these operations are carried out. The unit was developed from the original design by a prominent dairy foods research institute. The vat, having a batch capacity of either 10 or 20 litres dependent upon model, creates representative batches of soft and hard cheeses for demonstration, research and analysis purposes.

**INCLUDES INTEGRATED DATA LOGGER
HMI TOUCH SCREEN CONTROL**



Agitator paddle assembly



HMI touch screen



Features / benefits

- ▶ Makes all well known types of cheese
- ▶ Economical with raw materials
- ▶ 1kg batch provides adequate material for sampling
- ▶ 10 or 20 litre capacity stainless steel jacketed vat available
- ▶ Bench mounting with small footprint
- ▶ Separate console controls vat temperature and paddle speed
- ▶ Water heater fitted in console
- ▶ Integrated data logging facility for temperature and pH (requires PC)
- ▶ Range of cheese making accessories
- ▶ Simple controls
- ▶ Ease of use

Description

Manufactured wholly in stainless steel and bench mounted, the vat is hygienic in design. It has a removable paddle agitator of stainless steel, driven by a variable speed motor. Water is circulated around the vat jacket at a pre-selectable temperatures by an internal pump.

The control system incorporates:

- ▶ HMI for control and visualisation of data.
- ▶ digital display of pH of vat contents
- ▶ digital display of temperature of vat contents and water temperature.
- ▶ agitator stop/start and variable speed control
- ▶ integrated data logger with USB output
- ▶ automatic control of agitator speed, temperatures and times for up to six steps.

The pH and temperature probes are suspended in the vat contents from a bracket on the rim of the vat.

A specially designed perforated strainer fits into the vat outlet to facilitate efficient draining.

Requirements

Scale



1Ph



- ▶ Electrical Supply: Single phase (see Ordering codes)

FT20A Cheese Making Accessories

Designed to be used with the Armfield FT20 Cheese Vat to produce approximately 1kg of finished cheese.

Using the accessories, it is possible to carry out the following operations: curd cutting, cheddaring, pH determination (chemical) and pressing.

- ▶ Stainless steel horizontal blade curd knife
- ▶ Stainless steel vertical blade curd knife
- ▶ Stainless steel cheddaring box plus weights up to 10kg (2kg x 5) for initiating the traditional cheddaring process
- ▶ Cheese press with two moulds
- ▶ Acid testing kit comprising, including apparatus and chemicals

Ordering codes

- ▶ FT20-A: 220-240V/1ph/50Hz, (1.2kW)
- ▶ FT20-B: 120V/1ph/60Hz, (1.2kW)
- ▶ FT20-G: 220-240V/1ph/60Hz, (1.2kW)

Overall dimensions

Overall dimensions	Height	Width	Depth
FT20-10:	0.45m	0.60m	0.35m
FT20-20:	0.45m	0.75m	0.35m

Packed and crated shipping specifications

	Volume	Gross Weight
FT20-10	0.7m ³	80kg
FT20-20	0.8m ³	90kg

Capabilities

The vat and accessories are capable of:

- ▶ heating and agitating milk and holding at the required temperature for addition of starter culture and rennet
- ▶ holding at temperature during coagulation
- ▶ cutting and heating the curd
- ▶ maintaining the temperatures and agitating for designated steps
- ▶ settling the curd or 'pitching'
- ▶ drawing the whey
- ▶ milling
- ▶ salt addition
- ▶ pressing



Technical specifications

Vat

Working capacity:	10 or 20 litres depending on model
Agitator paddle:	Stainless steel
Agitator drive motor:	1.2Nm torque with variable speed
Paddle:	Removable assembly
Perforated strainer:	Stainless steel
Hygienic outlet valve:	Ball type'

Control Console

As well as containing the necessary electrical circuitry, the unit houses:

Heating water system:	0.85kW, temperature range ambient to 50°C set via the HMI
Safety:	hardwired over-temperature cut out
Agitator paddle:	with variable speed drive controlled via the HMI.USB output and data logging software (64bit compatible)
Note:	Requires PC for downloading of data pH/temperature indication on the HMI
Thermocouple probe:	Type K
pH probe:	Food spear type, 0 -14pH. Can be calibrated via software.

Agitator paddle variable speed drive control:	Thyristor, DC
USB output and data logging software (64bit compatible)	

Note: Requires PC for data logging (not supplied).

pH/temperature indication:	3½ digit display
Thermocouple probe:	Type K
pH probe:	Food spear type, 0 -14pH

Armfield standard warranty applies with this product

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.

An ISO 9001:2015 Company



armfield.co.uk

Aftercare

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