

The Armfield Cheese Vat (FT20) is a small-scale version of an industrial processing vessel in which these operations are carried out.

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**



FT20-20 Cheese Vat



FT20-10 Cheese Vat

Agitator paddle assembly



HMI touch screen



Features / benefits

- ▶ Makes varying 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
- ▶ Integrated 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.

Technical specifications

Vat

Working capacity	10 or 20 litres depending on model
Agitator paddle	Stainless steel
Agitator drive motor	12Nm torque with variable speed
Paddle	Removable assembly
Perforated strainer	Stainless steel
Hygienic outlet valve	Ball type'

Control Console, 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	
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

Overall dimensions

	Length	Width	Height
FT20-10	0.6m	0.35m	0.45m
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

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

1. Stainless steel cheddaring box - 2. Stainless steel horizontal & vertical blade curd knife - 3. Cylindrical stainless-steel strainer - 4. Tray - 5. Wooden followers - 6. Large tray -7. Moulds - 8. Acid testing kit comprising - 9. Cheese press - 10. Wooden burette stand - 11. Weights up to 10kg (2kg x 5)



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 healing the curd
- ▶ Maintaining the temperatures and agitating for designated steps
- ▶ Settling the curd or 'pitching'
- ▶ Drawing the whey
- ▶ Milling
- ▶ Salt addition
- ▶ Pressing

Requirements

Scale



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

Ordering codes

- ▶ FT20-10-A 220-240V / 1ph/ 50Hz (1.2kW)
- ▶ FT20-10-B 120V / 1ph / 60Hz (1.2kW)
- ▶ FT20-10-G 220-240V / 1ph / 60Hz (1.2kW)
- ▶ FT20-20-A 220-240V / 1ph / 50Hz (1.2kW)
- ▶ FT20-20-B 120V / 1ph / 60Hz (1.2kW)
- ▶ FT20-20-G 220-240V / 1ph / 60Hz (1.2kW)
- ▶ FT20A: Cheese Making Accessories option

Armfield standard warranty applies with this product

Knowledge base

- > 30 years expertise in research & development technology
- > 52 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

Installation
Commissioning
Training
Service and maintenance
Support: armfieldassist.com