



# THOMPSON MEAT MACHINERY

*Thompson 4000 Series Mixer Mincers*



**“THOMPSON TOUGH”**

**LEADING AUSTRALIAN MANUFACTURERS OF MEAT PROCESSING MACHINERY**

# THOMPSON 4000 SERIES MIXER MINCERS

*The Thompson 4000 Series Mixer Mincer is renowned for its outstanding performance and reliability, used extensively in high production facilities throughout the world.*

## THOMPSON 4200C MIXER MINCER, THE NEXT GENERATION IN DELIVERING:

- Advanced Mincing Technology;
- Highest Mince Product Quality;
- Superior Production Efficiencies in Machine Performance;
- Improved Machine Reliability; and
- Upgraded Product Contamination Prevention.

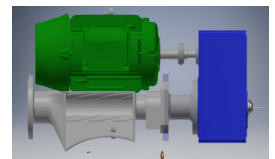
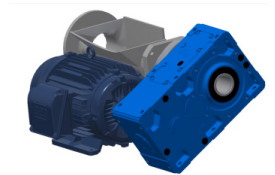
## THOMPSON 4200C MIXER MINCER HAS INCORPORATED THE CROSS FEED CHANNEL DESIGN WITH FEEDSCREW CHANNEL AT RIGHT ANGLE TO THE MIXING PADDLE.

The **CROSS FEED CHANNEL** has a Large Infeed Chute works symmetrically with the polished Stainless Steel Feedscrew provides balanced pressurised flow through the Spiral Mincing Barrel and Cutting System to produce **EFFICIENT MINCE, IMPROVED PRODUCTION OUTPUT RATES AND FINISHED PRODUCT QUALITY WITH HIGH DEFINITION MEAT PARTICLE**. This greatly **IMPROVES MEAT PRODUCT FLOW** on whole muscle, trim, 2nd cut mince and sausage emulsions. Feed rates through 12.7 mm hole plate are in excess of 4000 kg per hour i.e. approximately 70 to 80 kg per minute (depending on product and product temperature).



## THE BENEFIT OF CROSS FEED CHANNEL DESIGN:

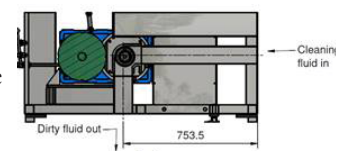
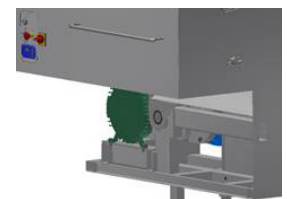
- **PREVENTS PRODUCT OVERWORKING** with the short feedscrew exposure in the hopper and reduces damage on minced meat and sausage emulsion during the 2<sup>nd</sup> cut mince process.
- **GREATLY IMPROVES MEAT PARTICLE DEFINITION** specifically through the 2<sup>nd</sup> cut mince process providing larger meat particle defined meat product (ground beef).
- **REDUCES PRODUCT TEMPERATURE INCREASE** during the mincing process.
- **IMPROVES SAUSAGE BATCH MANUFACTURING** with the reduced product being held in the feedscrew channel.
- **EXCELLENT PROCESSING TORQUE PERFORMANCE** with 15 kW 2 speed high torque motor combined with short feedscrew for both fresh and tempered product.
- **DESIGNED WITH CAPABILITIES TO PROCESS PRE BROKEN TEMPERED FROZEN PRODUCT DOWN TO -9°C.**



## THE NEW SANITATION AND CONTAMINATION PREVENTION SYSTEM ON MINCE DRIVE SEAL HOUSING

The 4200C Series Mixer Mincer has the **WASH-DOWN CHANNEL ON THE MINCE DRIVE SEAL HOUSING**. The Gear Motor Drive is separated from Mince Mounting Plate with an Extension on the Bearing, Seal and Wash down Channel Housing. This greater distance on its own **PREVENTS THE POSSIBILITY OF DEBRIS, OILS, CONTAMINATED JUICE ETC PASSING FROM THE BOWL BACK TO THE GEAR MOTOR DRIVE** and more importantly, from the bearing housing area back to the product in the bowl.

In addition, there are **CLEANING SLOTS** cut into the 5 mm (3/16") Stainless Steel plate that allows the operator to use a **HOSE AND SPRAY INTO THE CLEAN-OUT CHANNEL** that is approximately 75 mm x 25 mm (3" x 2") in section. Any debris that passed beyond the seal will fall into this Clean-out Channel and can be hosed out directly down to the floor. This will greatly assist in **PREVENTING CONTAMINATION FROM PRODUCT PASSING FROM A MECHANICAL ASSEMBLY THROUGH TO THE FOOD PRODUCTS**. Due to the size of the channel there will be no unwarranted pressure from the wash down process exerting onto the seals on both side of the Wash-down Channel. Effectively the water will jet in and out straight down to the floor.



A-A  
Washdown Channel for mince drive seal housings

## FEATURES OF THE THOMPSON 4200C (CROSS CHANNEL) MIXER MINCER

- **2 SPEED MINCE FEEDSCREW OPERATION**
- **15kW HELICAL MINCE DRIVE** delivers a more powerful performance ensures efficient discharge whilst minimizing squashing or pulping of the product
- **HEAVY DUTY STAINLESS STEEL MIXING PADDLE** offers thorough mixing of product
- **PROGRAMMED RECIPROCATING MIXING ACTION** ensures an efficient mix and dispensation of the product
- **COMPACT DESIGN** with only 1014 mm x 1364 mm of floor area required (excluding barrel and accessories)
- **56 SERIES (152MM) CUTTING HEAD SIZE**
- **SMOOTH CORNERS AND SURFACE FINISH** reduce cleaning down times
- **HIGH QUALITY 304 STAINLESS STEEL** machine body, barrel, feedscrew, lockring and mixing paddle
- **FULLY SEAM WELDED BOWL** - Welded both inside and outside
- **HOPPER CAPACITY:** 335L Bowl Capacity, 250kg Mix Capacity (Fresh Trim)
- **SAFETY INTERLOCKED PLATE GUARD**

## OPTIONS INCLUDE:

- Mince Motors
- Variable Frequency Drive - Mixing and Mincing System
- “66” (220mm or 8 5/8”) Cutting Head
- Feedscrew Ejector
- Raised on Stainless Steel Stand to discharge into 200L bins
- Feedscrew Knife & Plate Carriage
- Gemini System
- De-bone / De-gristle Cutting Systems
- Interlocked Safety Sliding Lid
- Ingredients or Liquid Pouring Channel to Lid
- Inspection Mirror
- Inspection Step
- Walk up Step & Platform for Cleaning and Adding Ingredients
- Automatic Reversing Feedscrew
- Scale Stand (4 Load Cells / Digital Indicator – Batch Weight Control)
- “Reinforced” Upsized Heavy Duty Mixing Paddle offers mixing of tougher product
- Extended Open Hopper complete with Safety Trip Bar around Hopper Perimeter

**THE CONSTRUCTION** of the 4000 Series is robust and built to last. Manufactured from **HIGH QUALITY STAINLESS STEEL** a strong structured framework supports a thick gauge mixing bowl and panels that are **FULLY SEAM WELDED BOTH INSIDE AND OUTSIDE THE BOWL**.

The standard height machines incorporate a **HEAVY GAUGE DOMED LID** with an open grilled section for ingredients adding or viewing of the mix cycle. An ingredients or liquids pouring channel is also offered as an option.

**HEAVY DUTY STAINLESS STEEL MIXING PADDLE, MINCING BARREL, FEEDSCREW AND LOCKRING** are standard construction on these renowned machines.

The 4000 SERIES has been designed and developed to the high standards of safety and finish demanded by **AUSTRALIAN STANDARDS, USDA, CE AND UL REGULATIONS**.

All models specifically incorporate the **SPECIFICALLY DESIGNED PADDLE BLADE ANGLES AND CONFIGURATIONS** maximize the product displacement and movement within corresponding mixing bowls that have been specifically contoured to accentuate the mixing action.

**THE SMART DESIGN MIXING BOWL AND PADDLE** finished with **SMOOTH HYGIENIC SURFACES** to panels and welds achieve a clean bowl on product discharge and ease the cleaning down process at the end of production.

The **MIXING PADDLE AND MINCE TRANSMISSION** are powered with **INDEPENDENT GEARED MOTOR DRIVES**. No more oily greasy chains, no more continual maintenance of pulleys and belt drives.

**THE PERFORMANCE** of the 4000 Series speaks for itself. Time and again sausage manufacturers have commented about the processing capabilities of the Thompson 4000 Series Mixer Mincers.

Within the **RECIPROCATING MIXING PADDLE CYCLE**, the product is free tumbled from top to bottom to top and from corner to corner within the bowl to deliver a very homogeneous mix within a short time period. Sausage mix is quickly yet gently mixed and consistently amalgamated and separated.

The mixing cycle is controlled by a factory “pre-set” or easily adjusted reciprocating mix cycle that achieves a well distributed particle mix for coarse ground high definition products or emulsified evenly seasoned products.

Smooth, compact and quiet the **HEAVY DUTY DRIVES** are very efficient in transmitting maximum power from **LARGE HP MOTORS** - featuring a **STANDARD 2 SPEED** on the feedscrew drive with **HIGH TORQUE** on low speed.

Both feedscrew and mixing drives have been engineered and developed over many years of research optimising RPM's and involving many varied processing applications.

The standard cutting head on the 4000 Series is “56” (152mm or 6”). The optional cutting heads are “66” (220mm or 8 5/8”) or “GU” 160 double cut system. These cutting heads **DELIVER HIGH PRODUCTION RATES** to a variety of products from **TEMPERED OR FLAKED FROZEN MEAT TO LIGHT FRESH MINCE**.

Fed by feedscrew designs that have been mastered and evolved over a long history the Thompson 4000 delivers a constant feed to a cutting head that itself is at the cutting edge of technology - delivering a **CLEAN CUTTING ACTION**.

The mixing bowl and cutting head features all combine to offer a very **HOMOGENEOUSLY MIXED PRODUCT** with a high definition cut in short mix/mince cycles, therefore limiting heat rise to the product.



*Standard 4000 Model*

*15kW - 2 Speed Mince Motor - 56 Cutting Head with Stainless Steel barrel, Feedscrew and Aluminum Bronze Lock Ring*



# POWERFUL 2 SPEED GRIND MOTOR WITH HIGH TORQUE DIRECT DRIVE TRANSMISSION

Consider the following production rates - **56 HEAD**;  
**4000 KG/HOUR 12MM PLATE (66 KG/MINUTE)**  
**3000 KG/HOUR 5MM PLATE (50 KG/MINUTE)**  
**2000 KG/HOUR 3MM PLATE (33 KG/MINUTE)**

or with the **OPTIONAL - 66 HEAD**;

**4500 KG/HOUR 12MM PLATE (75 KG/MINUTE)**  
**3600 KG/HOUR 5MM PLATE (60 KG/MINUTE)**  
**2800 KG/HOUR 3MM PLATE (46 KG/MINUTE)**

*(Dependent upon the product and temperature of the product)*

**SAFETY FEATURES** on the 4000 Series are plentiful since the machine was also developed with safety as a premium concern, conforming to the high demands of local and overseas regulations.

The **SAFETY INTERLOCKED LID** is a standard feature on all machines incorporated with a maximum stop time on the machine cycle, limiting any possibility of human interference with rotating parts.

A **SAFETY INTERLOCKED DISCHARGE GUARD** is also a standard feature.

**PLATE GUARD IMPROVEMENT** includes:

1. Plate Guard is opened with Vertical Rotating Action rather than Horizontally Swinging Action. This improvement prevents product from being scraped from the top of the bins onto the floor when the 200 L bin is overfilled when the guard is opened.
2. Category 3 Lock Safety Locking Devices Integrated With Smart Safety Relays (optional) provides Safety Improvement
3. Designed to Reduce Risk of Serious Injury by providing Category 3 Locks Safety Locking Devices integrated with Smart Safety Relays providing safety to operators and reduces risk.

A **FEEDSCREW EJECTOR** can be built into the machine to reduce the risk in removing knives, plates and feedscrews. **(THE FEEDSCREW EJECTOR IS A STANDARD FEATURE OF THE CE DESIGNED MACHINES.)**

Standard height machines are designed for ergonomic low load heights.

On the raised machines (built for 200 litre bin feed and discharge) **THE OPTIONAL INSPECTION STEP AND PLATFORM** are **SAFETY INTERLOCKED** and offered with the lid or no lid option including the **INSPECTION MIRROR** option.

**OPERATOR CONTROL** of the 4000 Series machines is very straightforward and **USER FRIENDLY**.

From the simple 3 push button machine as a standard - to optional degrees of control:

- Variable Speed Dial Control
- Programmable Pre-select Speed control
- Full Programmable Logic Control

**GEMINI SYSTEMS** The connection of two machines to incorporate a **CONTINUOUS MINCING SYSTEM OR PROCESS**.

Connecting a Primary Mixer Mincer for the first mince operation which then **AUTOMATICALLY FEEDS THROUGH AN INTERCONNECTED TUBE** to the Secondary Mixer Mincer for continuous processing of the second mince operation.

Product transfer is achieved through a guarded interconnecting tube, by a safety interlocked transfer tube or a combination of both.

The machines can also be easily separated in the event that different processing applications may be required i.e. batching of formulated product or emulsions.

The Gemini system allows Thompson 4000 Series Mixer Mincers to be connected in tandem with multiple machines including non Thompson machines.

**THE ADVANTAGES FROM UTILISING GEMINI SYSTEMS** for continuous mincing can include **REDUCED CAPITAL EQUIPMENT COST** from eliminating second mechanical loading device, **LABOUR COST SAVINGS** from improved operation efficiencies in production and **IMPROVED PRODUCT QUALITY** by eliminating product storage and processing time during the 1<sup>st</sup> and 2<sup>nd</sup> mincing operations.



*Thompson 200L  
Column Hoist*



*Standard 4000 Model  
15 kW - 2 Speed Mince - 56 Head  
Gemini Connection - available to various machines*

# THE THOMPSON 4200 FROZEN MIXER MINCER

*Incorporating all of the strength and features of the 4000 Series the 4200 FROZEN MIXER MINCER has been designed and constructed to withstand the higher forces and demands of processing hard frozen product.*

The construction of the **HEAVY-DUTY REINFORCED BOWL AND PADDLE** have been **STRUCTURALLY ENGINEERED** to process **TEMPERED BLOCKS** size of 150 x 150 x 400mm at -1°C. **FROZEN BLOCKS OF MEAT 50MM CUBE OR FLAKED AT -10°C THROUGH A MINIMUM HOLE PLATE OF 8MM DIAMETER.**

The **FROZEN FEEDSCREW** is uniquely designed with an **INFEED BELLOW** in the channel to the barrel.

This Bellow incorporated with the specific flight design to the feedscrew **CUTS THE PRODUCT** into small pieces and feeds to the **CUTTING HEAD**.

**POWERFUL MOTORS WITH HIGH TORQUE TRANSMISSIONS** achieve **HIGH PRODUCTION RATES ON COARSE MINCE** with a hard dry product.

The 4200 frozen model is designed to break and mince the cold hard dry product - frozen meat.

Built to handle the pre-cut pieces of frozen meat block the 4200F is ideal for **FIRST CUT MINCING** to 8mm. If **MINCING BELOW 8MM HOLE PLATE SIZE** is required it is recommended that an **INVERTER UPGRADE MODIFICATION** be made to the standard 2-speed machine.

This upgrade can provide **INFINITE SPEED CONTROL** or our recommended 4 Speed Control at determined and pre-set speeds that will offer **MAXIMUM PRODUCTION OUTPUTS** for customer specific products at various frozen product temperatures.

**WITH THIS UPGRADE, THE THOMPSON 4200 FROZEN MIXER MINCER IS CAPABLE OF MINCING A RANGE OF FROZEN PRODUCT THROUGH A 3MM HOLE PLATE.**

With all the benefits of the **4000 SERIES MIXING** system and incorporating the **2-SPEED MINCE MOTOR**, the **4200 FROZEN** model is a very versatile machine to many production requirements.

Used for **FROZEN PRE-MINCING ON 1<sup>ST</sup> SPEED** it can be as easily utilized for **HIGH PRODUCTION PROCESSING ON FRESH MINCE OR SAUSAGE EMULSION ON THE HIGHER 2<sup>ND</sup> SPEED.**

## *Heavy Duty Bowl and Paddle - Frozen 4200*



4kW Paddle Drive



Inspection Mirror

Safety Interlocked Step and Handrail

Independent Direct Drives

Safety Interlocked Discharged Guards

Feedscrew Ejector

Heavy Duty Leveling Pads on high clearance Stainless Steel stands (raised machines)

**4200 Frozen Model**  
(with optional stand & accessories)  
**15 kW - 1<sup>st</sup> Speed Mince for Frozen**  
**15 kW - 2<sup>nd</sup> Speed Mince for Fresh**

# SELECTING THE RIGHT MACHINE

*The strong rugged design of the 4000 Series has been developed to meet the needs of the most demanding Market Segments.*

From the high volume butcher to the large wholesaler through to the largest industrial plants.

Low load standard height machines or raised machines (see technical specification).

Offering **BOWL CAPACITIES FROM 200L TO 400L** (fresh meat) the 4000 model best suited for your application can be selected from the following:

## MODELS IN THE SERIES INCLUDE:

**4000-56** standard or raised machine - 200L bowl 56 Size cutting head

**4200-56** standard or raised machine - 300L bowl 56 Size cutting head

**4300-56** standard or raised machine - 400L bowl 56 Size cutting head

**(Bowl capacities are to be used as an indicative figure only and are based on whole muscle beef product at 2°C)**

**4200 FROZEN-56** standard or raised machine - 350L bowl 56 Size cutting head (4200 frozen bowl capacity based on frozen flake)

**ALL MACHINES ARE AVAILABLE WITH 56, 66 OR GU 160 CUTTING HEAD OPTIONS.**

**THE OPTIONAL 66 SIZE HEAD** With the 66 Size head the **OUTSTANDING PROCESSING PERFORMANCE** and capabilities of the 4000 series machines are **FURTHER IMPROVED**.

The flared head design and the **(200MM OR 8 5/2") DIAMETER KNIVES AND PLATES** of the 66 Size **INCREASES PRODUCTION** rates on fresh mince and sausage emulsions by as much as **20%** over the 56 Size head.

Production rates and the **DEFINITION OF CUT IS IMPROVED** and the 66 head is **RECOMMENDED** as a very favourable **OPTION** to a STANDARD 4000 Series machine when higher demands of processing are required.

**THE 66 SIZE HEAD COMPLIMENTS THE POWERFUL MOTORS AND TOUGH DIRECT DRIVES OF THE 4000 SERIES OFFERING THE OPTION OF FURTHER GAINS IN MINCING CAPABILITIES.**

Increasing the head size to 66 (200mm or 8 5/2") also assists in reducing cutting head pressures - reducing smearing possibilities and offering a very high definition of cut.



Illustrating 4200 Frozen 4 Speed

## OPTIONS

- Stainless Steel elevating stands
- Variable speed drives
- Controllable mix/mince cycles
- PLC pre-set programmable control
- Product temperature readout
- GEMINI connection / systems
- Pneumatic lid operation
- CO<sub>2</sub> Cooling
- Bone elimination system
- Feedscrew / knife & plate trolley
- Ingredients / Liquid chute in the lid
- Load cells to mixing bowl
- Feedscrew ejector

## Production Performance (based on -1°C to +4°C meat temp)

Machine/Model	Muscle & Trim kgs/hr (up to)			Sausage Emulsion kgs/hr (up to)	
	12mm Hole Plate	6mm Hole Plate	3mm Hole Plate	6mm Hole Plate	3mm Hole Plate
4000/4200/4300 – 56 Cutting Head	4000	3000	2000	2700	2000
4000/4200/4300 – 66 Cutting Head	4500	3600	2800	3200	2500

Production rates are indicative and dependent upon machine model, the product and the temperature of the product.  
Technical data is to be used as a guide only and is subject to change without notice.

## Production Performance kgs / hr

(based on -10°C Flaked to 'Tempered' meat temp: 1<sup>st</sup> Speed)

Machine/Model	12mm Hole Plate	8mm Hole Plate
4200 Frozen – 56 or GU 160	1800	1600

Dimensions and weights may vary in the course of development.  
Thompson recommends SPECO knives and plates as their preferred cutting system.

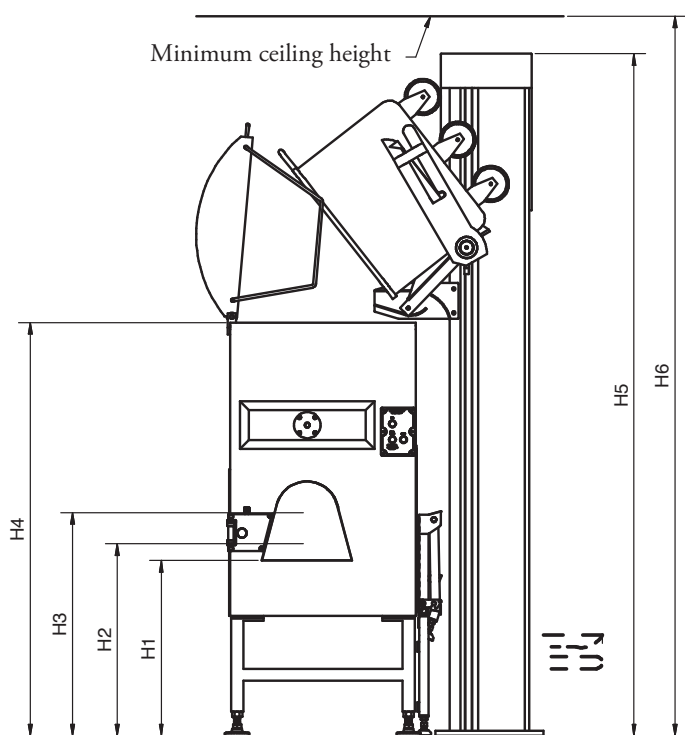
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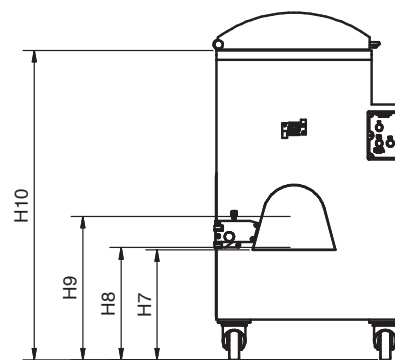
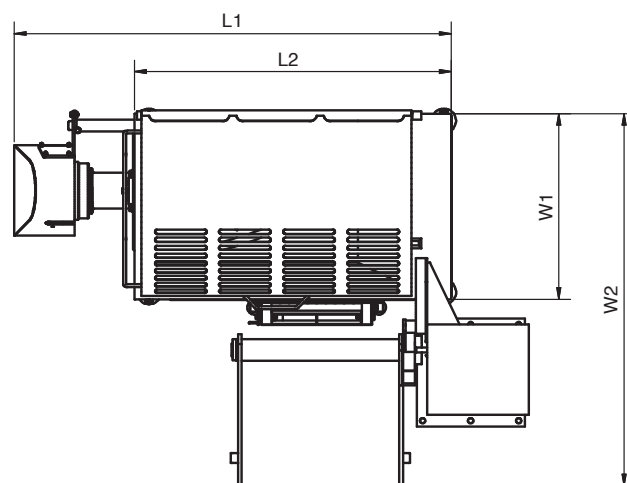
## Shipping Specifications:

Machine / Model	Ship Size (mm)	Ship Weight (kg)
4000-56 (Std)	1500 x 1150 x 1700 H	750
4200-56 (Std)	1900 x 1150 x 1850 H	900
4300-56 (Std)	2350 x 1150 x 1900 H	950
4200 Frozen – 56, 66 or GU 160	2350 x 1150 x 1900 H	1050

## 4000 Series Technical Specifications



Raised Machine(s) 200L Bin Load and Discharge

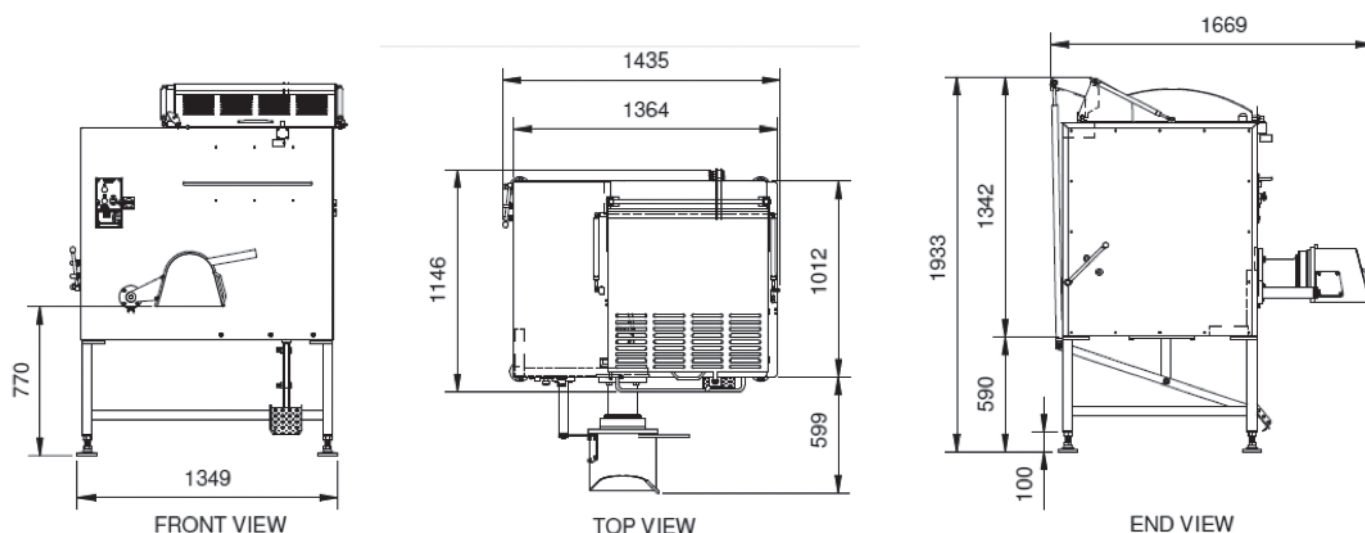


Standard Machine

*Technical data is to be used as a guide only and is subject to change without notice.*



## 4200C Mixer Mincer



### Dimensions (m):

Machine/Model	Raised Machines						Standard Machines							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	L1	L2	W1	W2
4000-56 (Std)							459	468	598	1290	1608	1034	774	N/A
4000-56 (Raised)	730	800	930	1722	2843	3000					1608	1034	774	1550
4200-56 (Std)							459	468	598	1410	1819	1317	774	N/A
4200-56 (Raised)	730	800	930	1722	2843	3000					1819	1317	774	1550
4200C-56 (Std)							340	370	490	1265	1435	1364	1012	N/A
4200C-56 (Raised)	770	800	920	1698	2843	3000					1435	1364	1012	1611
4300-56 (Std)							459	468	598	1510	2155	1653	792	N/A
4300-56 (Raised)	730	800	930	1802	2843	3000					2155	1653	792	1560
4200-Frozen (Std)							459	468	598	1510	2286	1491	792	N/A
4200-Frozen (Raised)	730	800	930	1802	2843	3000					2286	1491	792	1960

Dimensions and weights may vary in the course of development

### Technical Specifications (based on 415V / 50Hz):

Machine / Model	Bowl Capacity Litres	Mix Capacity	Mixer Motor	Mince Motor	Full Load Current (50Hz)	*Power Supply (Amps)
4000-56	215	150kg (fresh trim)	1.5kW	15kW – 2 speed	32A	63A
4200-56	390	1 x 200L Bin	2.2kW	15kW – 2 speed	33A	63A
4200C-56	377	1 x 200L Bin	2.2kW	15kW – 2 speed	33A	63A
4300-56	459	1.5 x 200L Bin	4kW	15kW – 2 speed	37A	80A
4200 Frozen – 56 or 66	377	1 x 200L Bin (90kg Frozen flake – beef)	4kW	15kW – 2 speed or VSD	37A	80A (2 speed) 100A (VSD)

\*Machine power supply to be fitted with a “D” curve motor start circuit break

Overload protection to motors

(Bowl capacities are to be used as an indicative figure only and are based on whole muscle beef product at +2°C)

*Manufactured in accordance with Australian Standards, USDA, CE and UL Regulations*



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