



THOMPSON MEAT MACHINERY

5000



5000 SERIES MIXER MINCERS

THOMPSON TOUGH • LEADING AUSTRALIAN MANUFACTURERS OF MEAT PROCESSING MACHINERY



About Thompson

Thompson Meat Machinery is a 100% Australian owned business that commenced manufacturing operations in 1981. Thompson's is the leading Australian Manufacturer of Meat Processing Machinery with a staff of 70 professionals, tradespersons and apprentices.

The Thompson range of machinery is large and varied and includes Mixer Mincers, Bandsaws, Mincers, Frozen Block Flakers, Sausage Fillers, Hoists and Vacuum Tumblers.

The Thompson philosophy has always followed two paths - the first one is to build strong and solid relationships with all customers both within Australia and overseas. The second is to be innovative and forward thinking with relation to the future wants and needs of the world market. Constant market surveillance ensures that Thompson's is always aware of future trends worldwide and is therefore able to gauge what new machines and models will be well received on the world stage.

Always mindful of safety requirements and customer satisfaction Thompson's has invested ever increasing funds each year in Research & Development.

Thompson machines have earned their reputation for reliable operations with ultra low maintenance requirements, with processing capabilities way beyond the limit of their original design characteristics. That's where the industry term "THOMPSON TOUGH" was forged. Thompson Tough Machines are now well recognized and they carry a reputation second to none.

Thompson's has been welcomed into major meat processing plants in North America, United Kingdom and Malaysia and of course in its home of Australia. The extensive distributor sales and service network has been boosted to now include Holland, Scandinavia, Iran, Thailand, Singapore, Japan and South Africa.

STAINLESS STEEL DIVISION

One question that the management and staff of Thompson Meat Machinery are frequently asked is how did you get from manufacturing machinery to fabricating stainless steel bench work. Because Thompson Meat Machinery is so focused on providing the ultimate solution to meat processors it follows that they would also be equipped and able to fabricate all your Stainless Steel benches and sinks. Thompson's Stainless Division also offers specifically designed food preparation counters and purpose built shop display units incorporating ovens, fridges, food preparation, pizza cooker and bain marie areas, these also are sold throughout Australia with a burgeoning market.

From their modern factory in Brisbane, Thompson's skilled craftsmen are able to take any plans and turn them into the ultimate stainless steel solution for you! Yes, stainless steel fabricated - THOMPSON TOUGH!

THE FUTURE OF THOMPSON MEAT MACHINERY

Thompson Meat Machinery will continue to cultivate new markets within Australia and overseas and by maintaining their two pathways to success will become a world leader in quality and performance. THOMPSON TOUGH MACHINES are set to become the name always associated with meat processing machinery throughout the World. When you think of meat machinery you think of Thompson



Contents

Thompson 5000 Series Mixer Mincers	4
Thompson 5500, 5600, 51000, 52000 “56”, GU 160 Twin Shaft Mixer Mincers	8
Model Comparison Chart	9
Thompson 5000 Single Paddle Mixer Mincer	10
Thompson 5000 Single Paddle End Discharge Chute Mixer Mincer	11
Thompson 5000 Single Paddle with Open Hopper and Inspection Step Mixer Mincer	12
Thompson 5000 Single Paddle CO ₂ Bottom Injection with End Discharge Chute Mixer Mincer	13
Thompson 5500 Twin Overlapping Paddle with Inspection Mirror Mixer Mincer	14
Thompson 5500 Twin Overlapping Paddle with Loading Chute and End Discharge Chute Mixer Mincer	15
Thompson 5600 Twin Overlapping Paddle with Extended Hopper and End Discharge Chute Mixer Mincer	16
Thompson 51000 Twin Overlapping Paddle with Open Hopper Mixer Mincer:	17
Thompson 51000 Twin Overlapping Paddle with CO ₂ Bottom Injection with End Discharge Chute	18
Thompson 52000 Mixer Mincer Twin Shaft Counter Rotating Overlapping Mix System	19
Mincer Cutting Systems, Enterprise & Unger	20
Thompson Gemini Systems	21
Thompson 5000 Mixer Mincer Specifications	22
Thompson Twin Shaft Mixing Paddle Mixer Mincer	23



Thompson 5000 Series Mixer Mincers

Thompson 5000 Series Mixer Mincers - 8,000 kg/hour

**Single Paddle Mixer Mincers
200-400kg batch size**

**Twin Shaft Mixer Mincers
500-2,500kg batch size**



Pictured: Thompson
5000 Mixer Mincer



Pictured: Thompson
5500 Mixer Mincer

KEY FEATURES

- 8,000 KG/HOUR
- 130 KG/MINUTE 7,500 KG/HOUR 2ND CUT through 4 mm hole plate.
- Exceptional production capacity and improved finished product quality
- 2 Speed 15 kW or 22 kW Mince Feedscrew Operation
- 534 L 400 kg Single Paddle Mixing Capacity
- 6,000 kg/hr 1st cut through 13 mm hole plate through "56" or GU 160 Cutting System
- Up to 8,000 kg/hr or 130 kg/min with upgraded High Efficiency Cutting System
- 2,800 kg/hr 2nd cut through 4 mm hole plate through "56" or GU 160 Cutting System
- Up to 7,500 kg/hr or 130 kg/min with upgraded High Efficiency Cutting System

Production rates are indicative and dependent upon machine model, the product and the temperature of the product.

Thompson 5000 Series Mixer Mincers Overview

This overview of Thompson Large Industrial 5000 Series Mixer Mincers with CO₂ injection and a host of other options, processing, and efficiency benefits.

The overview and understanding of Thompson Mixer Mincer capabilities provides the perspective of the different model mixer mincers within the Thompson range and how they compare and often exceed mixer mincers capabilities and performance available from competitors.

Production capabilities of a single 5000 Mixer Mincer are up to 250 tonnes/week for 1st cut mince production.

All Thompson 4000, 5000, 6000, 9000 Series Mixer Mincers and above are more than capable of producing 100 tonne / week of primary cut.

Thompson Meat Machinery expertise and reputation with the manufacture of large high-tech Mixer Mincers has grown considerably with the recent patented developments of these machines not limited to but including the development of Thompson High Efficiency Cutting System (H.E.C.S) that can produce the following output rates with low energy requirements.

Thompson Mincing Technology that is Quite Exceptional

In addition to achieving high production output rates, the Meat Particle Definition and Size produced through these systems is extremely distinct and consistent. When the product is examined, it is easy to identify the extremely clear, distinctly separated meat and fat particles which are of consistent size. Smearing of the meat particles is eliminated by the design characteristics of the cutting system which is more than just the knife and plate. The High Efficiency Feedscrew and Barrel Design correctly proportion the product supply from the intake channel through to the cutting system with hole plate. By balancing the product input and output ratio with each revolution of feedscrew we minimise mechanical working of product which maintains the original meat structure through the transport system until it is cut between the knife and hole plate. The benefits of this cutting system are finished product delivered with minimum temperature rise, particle definition

that is clear with distinct separate meat and fat particles of consistent size. A further important factor is that there is no excessive pressure from over extruding the product through the hole plate that can damage the meat structure.

SUPERIOR MINCE QUALITY & PARTICLE DEFINITION AND TEMPERATURE REDUCTION TECHNOLOGY

There are numerous beneficial options available that can enhance production output, product and production consistency including:

- Variable speed feedscrew control
- CO₂ bottom injection
- PLC control
- Weigh load cells
- Water injection



Pictured: 1st Cut Fresh
70CL Mince Meat



Pictured: 1st Cut Fresh
80CL Mince Meat



Pictured: Cheese & Chive Meatball
End Discharge after Mincing



5000 MIXER MINCER

15 kW or 22 kW

6000 kg/hour Production Rate.

Counter-balanced Safety Interlocked Domed Lid complete with viewing grills

Clamp on Quick Release Removable Stainless Steel Barrel Assembly enables thorough cleaning and sanitation

56 Series (152mm) Cutting Head Size

Safety Interlocked Plate Guard

Feedscrew Ejector

Compact Design requiring minimal Floor Area



5000 MIXER MINCER WITH OPEN HOPPER

Open Hopper with 740 L Capacity (275 mm) Hinged with Safety Interlock when Open.

Safety Trip Bar to allow continuous loading.

Open Hopper allows Continuous Loading.

Increase capacity to accept 3 x 200L bins.

Very advantageous for Continuous Feed 1st cut Mince Processing.



5000 MIXER MINCER WITH END DISCHARGE

Fold up Inspection Step-Interlocked

GU 160 Clamp-On Quick Release Removable S/S Barrel Assembly

Hoist Loading from Opposite End to End Discharge.



5000 MIXER MINCER WITH CRYOGENIC COOLING SYSTEM

5000 Displaying Cryogenic Cooling System.

CO₂ injection.

N₂ Nitrogen injection.

PLC Control with HMI Control Panel Monitoring.

Example: 200 kg Temperature Reduction from 8°C to 0°C in 40 seconds



5500 - TWIN PADDLE WITH INSPECTION MIRROR

Bowl and hopper combined capacity	888 litres
Volume at top of Bowl	888 litres
Volume at top of Paddle	600 litres
Mince motor	22 kW with option of 30 kW
Mixer motor	9.2 kW
Loading Height	2222mm (87.5")



5500 - TWIN PADDLE WITH LOADING CHUTE & DISCHARGE CHUTE

Bowl and hopper combined capacity	989 litres
Volume at top of Bowl	534 litres
Volume at top of Paddle	386 litres
Mince motor	22 kW with option of 30 kW
Mixer motor	9.2 kW
Loading Height	2222mm (87.5")



5600 - TWIN PADDLE WITH OPEN HOPPER & DISCHARGE CHUTE

Bowl and hopper combined capacity	1690 litres
Volume at top of Bowl	1079 litres
Volume at top of Paddle	680 litres
Mince motor	22 kW with option of 30 kW
Mixer motor	9.2 kW
Loading Height	2222mm (87.5")



52000 TWIN OVERLAPPING MIXER MINCER

Bowl and hopper combined capacity	3005 litres
Volume at top of Bowl	3005 litres
Volume at top of Paddle	2500 litres
Mince motor	22 kW with option of 30 kW
Mixer motor	15 kW

Thompson 5500, 5600, 51000, 52000 "56", GU 160 Twin Shaft Mixer Mincers



Pictured: Thompson 5600 Twin Paddle with Discharge Chute



Pictured: Thompson 5500 Mixer Mincer

KEY FEATURES

- 2 Speed 15 kW or 22 kW Mince Feedscrew Operation
- Variable Speed 22 kW, 30 kW or 37 kW Mince Feedscrew Operation.
- 888 L to 2800 L (500 kg to 2000 kg Batch Capacity) Twin Action Mixing Shafts.
- 5,000 kg/hr 1st cut through 13 mm hole plate through "56" or GU 160 Cutting System
- Up to 8,000 kg/hr or 130 kg/min with upgraded High Efficiency Cutting System
- 2,800 kg/hr 2nd cut through 4 mm hole plate through "56" or GU 160 Cutting System
- Up to 7,500 kg/h or 130 kg/min with upgraded High Efficiency Cutting System

Production rates are indicative and dependent upon machine model, the product and the temperature of the product.

Model Comparison Chart

	5000 - SINGLE PADDLE 275 HOPPER	5500 - TWIN PADDLE INTEGRAL HOPPER	5600 - TWIN PADDLE INTEGRAL HOPPER	51000 - TWIN PADDLE INTEGRAL HOPPER
Bowl and hopper combined capacity	989 litres	888 litres	1690 litres	1570 litres
Volume at top of Bowl	534 litres	888 litres	1079 litres	1570 litres
Volume at top of Paddle	386 litres	600 litres	680 litres	1118 litres
Mince motor	22 kW with option of 30 kW	22 kW with option of 30 kW	22 kW with option of 30 kW	22 kW with option of 30 kW
Mixer motor	9.2 kW	9.2 kW	9.2 kW	9.2 kW
Ejector	Pneumatic	Pneumatic	Pneumatic	Pneumatic
Loading Height	2222mm (87.5")	1914mm (75.3")	2222mm (87.5")	1989mm (78.3")



5000 Single Paddle Mixer
Mincer



5000 Single Paddle Mixer
Mincer with End Discharge
Chute



5000 Single Paddle Mixer
Mincer with Extended Hopper
for Continuous Loading



5000 Single Paddle Mixer Mincer
with CO₂ Bottom Injection and
End Discharge Chute



5500 Twin Overlapping Paddle
Mixer Mincer with Inspection
Mirror



5500 Twin Overlapping Paddle
with Loading Chute & Discharge
Chute



5600 Twin Overlapping Paddle
Mixer Mincer with End Discharge
and Extended Hopper



51000 Twin Overlapping Paddle
with CO₂ Bottom Injection

Thompson 5000 Single Paddle Mixer Mincer



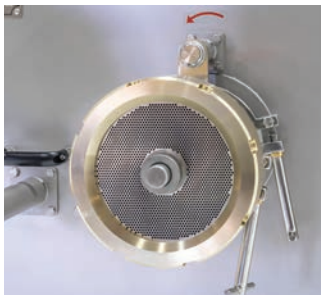
The Thompson 5000 Mixer Mincer Feedscrew Design operates at a Right Angle to the Mixing Bowl & Paddle.

Feedscrew Design of Reduced Feedscrew Length inside bowl is a calculated length maximising up to 8000 kg/hour production output rate but reducing overworking of the product of a feedscrew of longer length. Perfectly Proportioned for Maximum Efficiency and achieving production output rates of up to 8000 kg/hour on 1st cut through 13 mm Hole plate and 7500 kg/hour on 2nd cut through 4 mm Hole plate.

THE THOMPSON 5000 SERIES MIXER MINCERS ARE HEAVY DUTY INDUSTRIAL MACHINES.

SPECIFICATIONS & FEATURES INCLUDE

- 2 Speed Mince Feedscrew Operation
- 15kW Helical Mince Drive delivers powerful performance ensures efficient discharge whilst minimizing squashing or pulping of the product
- Segmented Quick Release Removable Stainless Steel Barrel Assembly enables thorough cleaning and sanitation
- "Reinforced" Heavy Duty Stainless Steel mixing Paddle Provides thorough mixing of product in all areas of the bowl
- Programmed Reciprocate Mixing Action ensures an efficient mix and dispensation of the product
- Compact Design with only 1533 mm x 1574 mm of floor area required (excluding barrel and accessories)
- 56 Series, GU 160 & "66" Cutting Head Size
- Raised on Stainless Steel Stand to discharge into 200L bins
- 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
- Safety Interlocked Plate Guard
- Pneumatic Feedscrew Ejector
- Extended Hopper Capacity
- Optional 22kW Helical Gear Motor Mince Drive



Safety Interlocked Plate Guard



Unique Feedscrew Design



HMI Control Panel



5000 Mixer Mincer Accessories

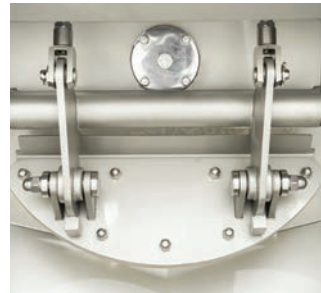
Thompson 5000 Single Paddle End Discharge Chute Mixer Mincer



The Thompson 5000 Mixer Mincer has the option of a Product Discharge Chute, a pneumatically controlled door(s) on the end of the bowl that enables the bowl contents to be emptied without passing through the feedscrew and cutting system.

On a conventional Mixer Mincer the product goes through the mincing process twice: once during the primary first cut reducing primal or meat trimming to a smaller particle size before being mixed with ingredients and then secondary cut to empty the product from the bowl.

The option of Unique Product Discharge Guard will allow the product to be emptied from the bowl without the second mincing process to maintain much more of its meat integrity, avoiding risk of emulsifying through the feedscrew and cutting system. This produces product that is much juicier, more mouth feel, better bite and more of a home-style product.



Discharge Chute



Discharge Chute



*Pneumatic Controlled
Discharge Chute*



Discharge Chute Control Panel

Thompson 5000 Single Paddle with Open Hopper and Inspection Step Mixer Mincer



Pictured:
Thompson 5000
with Open Hopper

Pictured:
Thompson 5000
with Extended
Hopper



There are Huge benefits of incorporating Open Hopper and Extended Hopper to the Thompson 5000 Mixer Mincer.

The Open Hopper fitted with Safety Trip Bar (illustrated in the photo above) allows the Standard Interlocked Lid to be removed. This allows continual loading of 200 or 300 L bins with loader or conveyor improves efficiency and increase production output rate from not stopping the machine when the lid is open to re-load product.

The Extended Hopper combined with the bowl increases total bowl volume from 530 L to 830 L. The Larger Extended Hopper further increases total bowl volume to 990 L.

Additional Hopper Capacity is of great benefit when processing frozen product that is generally either pre-broken, flaked or pre-ground. Frozen product volume increases by 2.8 times on average. A 200 L bin will generally only hold 70-80 kg of -10°C frozen flaked, pre-broken, guillotined, or minced meat. As the frozen meat is mixed efficiently and homogenously in the

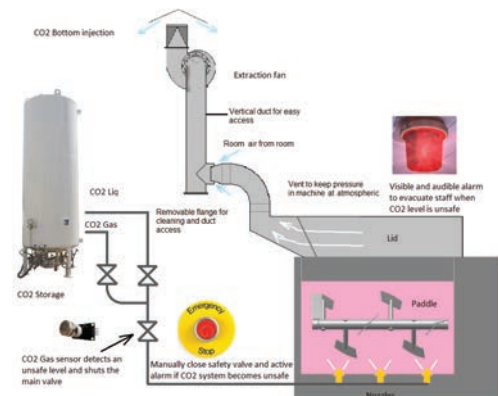
5000 Mixer Mincer the frozen flaked or minced meat becomes more condensed and the volume is reduced ready for 2nd cut mince process.

The additional Hopper Capacity allows an additional bin to be added achieving a 200 kg and possibly up to 400 kg batch of finished product in the 5000 Mixer Mincer when using frozen pre-broken or guillotined meat.. The Larger Hopper Extension can easily accommodate 3 of 200 L bins of product.

The Extended Hopper also allows loading from the opposite end (gear motor drive end) when the 5000 Mixer Mincer is fitted with an End Discharge Chute.

The Open Hopper is fitted with Safety Trip Bar around the perimeter of the opening complying with Safety Standards. The Hinged Open Hopper also incorporates Safety Interlock to stop the machine operation when the Hopper is open, allows easy access to the bowl for cleaning and sanitation.

Thompson 5000 Single Paddle CO₂ Bottom Injection with End Discharge Chute Mixer Mincer



Carbon Dioxide (CO₂) Or Nitrogen (N₂) Bottom Cooling Injection and CO₂ Top Injection Through Snow Cones

Thompson Meat Machinery incorporates the CO₂ or N₂ injection cooling technologies in their mixer mincers, through a series of nozzles and manifold system which delivers efficient and consistent product temperature reduction technique coupled with perfect temperature controls.

CO₂ snow cones cooling system is used for processing batches of product less than 300kg through snow cones. This is a more effective and efficient cooling system than bottom injection for smaller batches. The bottom cooling injection system releases a great deal of CO₂ shooting at high pressure through the smaller batches of product resulting in a high amount of wasted CO₂ which is exhausted through the plenum by exhaust fan. The high pressure will also carry the product upwards covering the internal surface of the lid making it more difficult to clean.

The CO₂ bottom cooling injection process requires an initial injection of CO₂ gas to pressurise the manifold system prior to the release of liquid CO₂ into the chamber and injected through the nozzles into the bowl. Once the liquid injection process is

complete a third process of flushing out the manifold system with gas is necessary to complete the cycle.

It is important that the manifold system stays pressurized until all CO₂ liquid is ejected. If the CO₂ goes below the critical pressure point it will form into a solid (snow) and block the complete manifold system. It can take numerous hours to defrost a blocked manifold system and that is why it is imperative that it is designed correctly. Thompsons have never had the issue of a blocked manifold system.

The N₂ bottom cooling injection process releases small bursts of liquid nitrogen into the product. The large temperature difference causes the nitrogen to boil off as a gas which is used in the cooling process.

The program logic control (plc) temperature monitoring and control is fitted to regulate CO₂ injection and maintain desired product temperature. Plc also monitors finished product temperature after mincing processes.

Thompson 5500 Twin Overlapping Paddle with Inspection Mirror Mixer Mincer



The **5500 Series Twin Shaft Mixing Paddle Mixer Mincers** incorporate the same high-performance mince technology as Single Shaft. The 5500 Series have a larger Hopper Capacity & Batch Mixing Capacity which provides increased efficiency by reducing product mixing time through reduction of number of batches required per day. The 5500 Series capacities range from 888L on the 5500 model through to 3410L on the 52000 model.

Volumetric measure to the top level of the mixing paddles is the important specification as that is where the efficiency in the mixing action is governed. The 5500 Mixer Mincer has a volume capacity of 600L to top of the paddles which allows effective mixing of the 500kg batch.

The 5500 Mixer Mincer is fitted with a 22 kW Gear Motor Mince Drive with ability of upgrade to a 30 kW Gear Motor Drive. Increased gear motor size provides additional advantages when processing frozen meats. The 5500 Mixer Mincers can easily process frozen tempered, pre-broken or flaked meat at temperatures down to -12°C.

Thompson 5500 Mixer Mincer Production Rate Improvements with Thompsons Patented High Efficiency Cutting System (HECS) Mincing System & Variable Frequency Drive (VFD)

1st Cut Mincing Production Rates Processing Fresh Meat through 13 mm Hole Plate

- 6,000 kg/hr or 100kg/min 1st cut through 13mm “56” hole plate
- 8,000 kg/hr or 130kg/min 1st with upgraded “66” HECS & Mince VFD

2nd Cut Mince in Production Rates Processing Fresh Meat through 4 mm Hole Plate

- 3,600 kg/hr or 60kg/min 2nd cut through 13 mm “56” hole plate
- 7,500 kg/hr or 130 kg/min 2nd with upgraded “66” HECS & Mince VFD

Mincing production output rates become more important with larger batch processing volumes. The larger the production batch the more critical it is to empty the product from the Mixer Mincer at the fastest rate possible. On completion of the mixing cycle, it's destructive if product remains in the bowl and is continually being mixed by the rotating paddles. This results in extracting additional protein damaging meat particle and spoiling product from the extended mixing time.

IMPORTANTLY, when mixing larger batches in larger Mixer Mincer, the batch mixing time must remain the same as when mixing the smaller batches in a smaller Mixer Mincer. This is achieved by using Thompson Overlapping and Multi-Directional Mixing System Design, the most efficient mixing system cycle and design, saving overall mixing time and increase production output rate.

Thompson 5500 Twin Overlapping Paddle with Loading Chute and End Discharge Chute Mixer Mincer



Discharge Chute



Discharge Chute



*Pneumatic Controlled
Discharge Chute*



Discharge Chute Control Panel

The Thompson 5500 Mixer Mincer Feedscrew Design operates at a Right Angle to the Mixing Bowl & Paddle. This feedscrew design reduces the feedscrew length inside the bowl which maximises up to 8000 kg/hour production output rate but reduces overworking of the product of a feedscrew of longer length. Perfectly Proportioned for Maximum Efficiency and achieving production output rates of up to 8000 kg/hour on 1st cut through 13 mm Hole plate and 7500 kg/hour on 2nd cut through 4 mm Hole plate.

OVERLAPPING MULTI-DIRECTIONAL TWIN PADDLE DESIGN

- Overlapping Twin shaft configuration of the paddles thoroughly mix the product in all areas of the bowl.
- Smart bowl design. The shape and volume ensure an efficient mix and product discharge.
- The efficient paddle design ensures mixing cycles and temperature increases are kept to a minimum.
- Strong ribbon style mixing paddle. Options available:
 - Single Continuous Full Ribbon Paddle
 - Combination Ribbon and Paddle Plate Mixing Arm

The Thompson 5500 Mixer Mincer has the option of a Product Discharge Chute, a pneumatically controlled door(s) on the end of the bowl that enables the bowl contents to be emptied without passing through the feedscrew and cutting system. On a conventional Mixer Mincer the product goes through the mincing process twice: once during the primary first cut reducing primal or meat trimming to a smaller particle size before being mixed with ingredients and then secondary cut to empty the product from the bowl.

The option of Unique Product Discharge Door will allow the product to be emptied from the bowl without the second mincing process to maintain much more of its meat integrity, avoiding risk of emulsifying through the feedscrew and cutting system. This produces product that is much juicier, more mouth feel, better bite and more of a home-style product.

The discharge door discharge rate is another advantage for processing time improvement, generally a 200 kg batch will empty in about 40 seconds, depending on the consistency.

Thompson 5600 Twin Overlapping Paddle with Extended Hopper and End Discharge Chute Mixer Mincer



OPTIONS INCLUDE:

- 66 220mm H.E.C.S High Efficiency Cutting System
- 22kW Mince Gear Motor Drive
- End Discharge Chute
- Variable Frequency Drives (VFD) Mix Paddles
- Variable Frequency Drives (VFD) Mince Feedscrew
- PLC Program Logic Control with Human Machine Interface
- Polished Bowl and Paddles
- Pneumatic Feedscrew Ejector
- Step and Platform Assembly
- Hopper Swing Guard-Interlocked
- Inspection Mirror Feedscrew Trolley Remote Control on Inspection Step
- Interlocked Guard C/W Time Out Lock
- Safety Interlock Discharge Guard with Time Out
- Bone Elimination System Pneumatic Air Purge
- Auto Reverse Feedscrew
- Feedscrew Trolley
- CO₂ Bottom Cooling Injection and Top Injection through Snow Cones
- Hydraulic Operated Heavy-Duty Lid for CO₂
- Light Curtains
- Plenum To Rear of Machine for CO₂ Cross Flow Extraction
- Water Monitoring with PLC Control System
- Temperature Readout(Check Detail Of Existing)
- Scale Stand
- Grill Lid
- Lid Auto Release

Thompson 5600 mixer mincer is a most effective universal mixer mincer design to produce highest quality finish product in all food processing facilities. The quality of the product produced from the Thompson 5600 mixer mincer will assist in increasing business growth from the exceptional quality of the product produced. The 5600 Mixer Mincer has the same exceptional high output mince production rate & Twin shaft overlapping mixing paddle system as the 5500 Mixer Mincer explanation on previous page. The 5600 Mixer Mincer has a larger capacity including integrated hopper, more heavy-duty construction built for long life producing high volumes of mince and processed product.

5600 Standard Design Benefits Include:

- Extended Hopper-Integrated
- Twin Shaft Overlapping Paddles
- 5600 S/S Cast Feedscrew Channel with Spiral Flighting Increase Production Output Rate

MIX BATCH CAPACITY 600 KG TO 800 KG

1st Cut Mincing Production Rates Achievable Processing Fresh Meat through 13 mm Hole Plate

- 6,000 kg/hr or 100 kg/min 1st cut through 13 mm "56" hole plate
- 8,000 kg/hr or 130 kg/min 1st cut with upgraded "66" HECS & Mince VFD

2nd Cut Mince in Production Rates Achievable Processing Fresh Meat through 4 mm Hole Plate

- 3,600 kg/hr or 60 kg/min 2nd cut through 4 mm "56" hole plate
- 7,500 kg/hr or 130 kg/min 2nd cut with upgraded "66" HECS & Mince VFD

Various combinations of the following optional specifications will provide the ultimate mixer mincer for your processing facility.

Thompson 51000 Twin Overlapping Paddle with Open Hopper Mixer Mincer



Thompson 51000 Mixer Mincer - Robust Heavy-Duty Design incorporating "66" H.E.C.S (High Efficiency Cutting System). Built for high production capabilities including the addition of 37kW mince gear motor drive option, 1570L hopper capacity enables 1000 kg batch mixing. 51000 Mixer Mincer is designed to produce the highest quality finish product in all food processing facilities.

The Thompson 51000 Mixer Mincer Feedscrew Design with reduced Feedscrew Length inside Bowl Reduces Over Working of the Product & providing balanced portion feeding per revolution which prevents pressurising of the meat product which can extract meat juices.

Thompson 51000 Twin Shaft Mixer mincers have capability to upgrade to 30kW & 37kW mincer gear motor drive. The increase in motor size can provide additional advantages when processing frozen meats. Thompson Mixer Mincers can easily process frozen Tempered, pre-broken or flaked meat at temperatures of -12°C.

Larger Bin Usage i.e., 500 kg or 1 tonne bin loading in Single operation saves significant product load

H.E.C.S. SIGNIFICANTLY REDUCE ANY ADDITIONAL MIXING AGITATION DURING MINCE OUT PROCESS.

H.E.C.S. Patented Mincing System produces significant increase to mince production output rate & Quality. Thompson Technology during the 2nd cut mince discharge can initiate significant reduction in mix paddle agitation. Minimising mix agitation diminishes process being destructive of extended protein extraction, mechanical action that can cause damage to meat particle, additional increase of temperature, potential product spoilage, shelf-life reduction from excessive discharge time.

MIX BATCH 1000 KG - MINCE PRODUCTION OUTPUT 1st Cut Mincing Production Rates Achievable Processing Fresh Meat through 13 mm Hole Plate

- 6,000 kg/hr or 100 kg/min 1st cut through 13 mm "56" hole plate
- 8,000 kg/hr or 130 kg/min 1st cut with upgraded "66" HECS & Mince VFD

2nd Cut Mince in Production Rates Achievable Processing Fresh Meat through 4 mm Hole Plate

- 3,600 kg/hr or 60 kg/min 2nd cut through 4 mm "56" hole plate
- 7,500 kg/hr or 130 kg/min 2nd cut with upgraded "66" HECS & Mince VFD

Thompson 51000 Twin Overlapping Paddle with CO₂ Bottom Injection with End Discharge Chute



Thompson 51000 CO₂ Mixer Mincer - Robust Heavy-Duty Design incorporating "66" H.E.C.S (High Efficiency Cutting System). Designed for high production capabilities including addition of 37 kW mince gear motor drive option, 1570L hopper capacity enables 1000 kg batch mixing. 51000 Mixer mincer is designed to produce highest quality finish product in all food processing facilities.

Refer to Options List for comprehensive detail of production and quality benefits of the numerous options available.

Thompson 5000 Mixer Mincer Feedscrew Design operates at a Right Angle to the Mixing Bowl & Paddle. Feedscrew Design of Reduced Feedscrew Length inside bowl is a calculated length maximising up to 8000 kg/hour production output rate but reducing overworking of the product of a feedscrew of longer length. Perfectly Proportioned for Maximum Efficiency and achieving production output rates of up to 8000 kg/hour on 1st cut through 13 mm Hole plate and 7500 kg/hour on 2nd cut through 4 mm Hole plate.

CO₂ COOLING TIME: 1000 KG BATCH

General Information: 51000 mixer/grinder with bottom injection CO₂ designed to cool batches of 1000 kg by 9°C would be sized as follows:

- Liquid CO₂ pipe size: 25 NB Number of nozzles: 12 Nozzle design: 3 x Ø2.38 holes
- Approximate CO₂ flow rate: 5500 kg/hour second 300 kg/40 seconds/10°- 9°C to 0°C
- 1000 kg dropped from 10°- 9°C to 0° approximately 2 minutes.

These estimates are based on continual flow. Preferred method is purged timeframes which allows more effective automatic control to reach specific temperature. The purge system adds considerable additional timeframe approximately 3 x times longer.

Thompson 52000 Mixer Mincer Twin Shaft Counter Rotating Overlapping Mix System



Thompson 52000 Mixer Mincer 3410 L Hopper Capacity available for customers with big demand, seeking productivity and efficiency gains with the requirements for 2000 kg batch mixing ability. Twin shaft overlapping mixing paddle system work extremely effectively and the mirror polishing finish on both the bowl and the paddles is very useful to limit any sticking of product to machine services. 52000 construction is further strengthened for the heavy loads and larger Torque required at times for mixing very heavy viscosity product.

The 52000-mince production rate of up to 8000 kg/hr is suitable with this batch size for many products in some instances pet food or Donna kebabs which lends itself to additional mixing tight binding product.

52000 Standard Design Benefits Include:

- Extended Hopper-Integrated
- Twin Shaft Overlapping Paddles
- 52000 S/S Cast Feedscrew Channel with Spiral Flighting Increase Production Output Rate

OPTIONS INCLUDE:

- 66 220mm H.E.C.S High Efficiency Cutting System
- 37 kW Mince Gear Motor Drive
- End Discharge Chute
- Variable Frequency Drives (VFD) Mix Paddles
- Variable Frequency Drives (VFD) Mince Feedscrew
- PLC Program Logic Control with Human Machine Interface
- Polished Bowl & Paddles
- Pneumatic Feedscrew Ejector
- Step And Platform Assembly
- Hopper Swing Guard-Interlocked
- Inspection Mirror Feedscrew Trolley Remote Control on Inspection Step
- Interlocked Guard C/W Time Out Lock
- Safety Interlock Discharge Guard with Time Out
- Bone Elimination System Pneumatic Air Purge
- Auto Reverse Feedscrew
- Feedscrew Trolley
- CO₂ Bottom Cooling Injection and Top Injection Through Snow Cones
- Hydraulic Operated Heavy-Duty Lid for CO₂
- Light Curtains
- Plenum To Rear of Machine for CO₂ Cross Flow Extraction
- Water Monitoring with PLC Control System
- Temperature Readout(Check Detail Of Existing)
- Scale Stand
- Grill Lid
- Lid Auto Release

INCREASED batch mix capability provides production efficiency from batch mixing time reduction over production day. **Larger Total Hopper Capacity Allows More Bins to Be Loaded or use of Larger Bins to Be Loaded-Producing Production Time Reduction.** Product load time reduction is a significant saving with immediate impact. Grinder/Process operator more available time for additional function.

Mix Batch 2000kg - Mince Production Output

- 1st Cut up to 8000kg /hour
- 2nd cut Mince 4 mm Hole plate 7500kg/hour

Improved Production Efficiencies, Increased Production Output, Production Cost Reduction

Mincer Cutting Systems, Enterprise & Unger

Thompson Meat Machinery solution for cutting system variations.

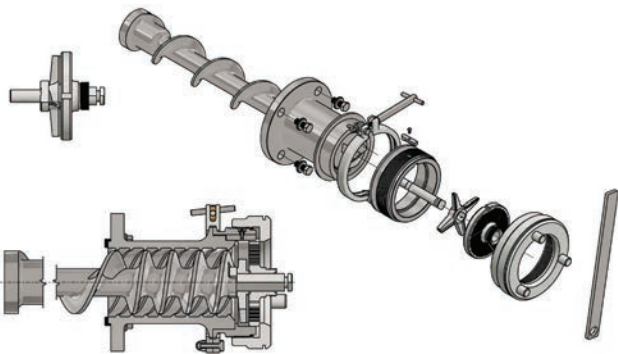
Beyond providing cutting system that suits the customer, or the market whether that be enterprise or Unger, Thompson go one step further and provide interchangeability between Enterprise & Unger System allowing if necessary the use of both systems on the same machine without relying on spaces to take up compromise of removing knives and non-required knives & plates.

These additional spaces that are accumulated at the end of the cutting system can create smear from the discharged product running over the inside diameter of the spaces.

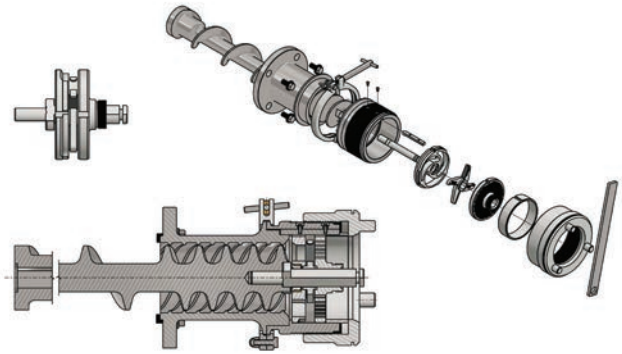
THOMPSON CLAMP ON SYSTEM

Clamp On System allows interchangeability by changing the Plate Housing clamped onto the Mincing Barrel for an alternative creating change from single cut to double cut or to Triple cut or beyond triple cut to Multi-cut.

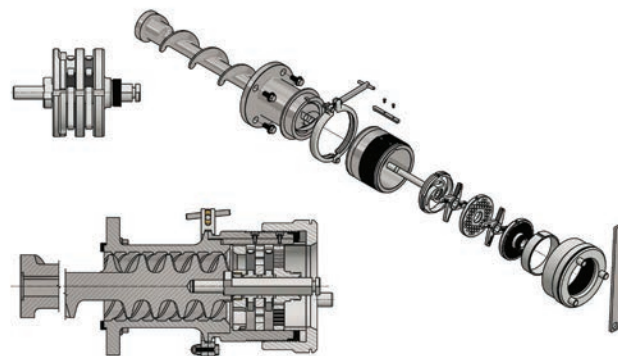
Thompson Clamp On Enterprise & Unger Cutting System Interchangeable Options.



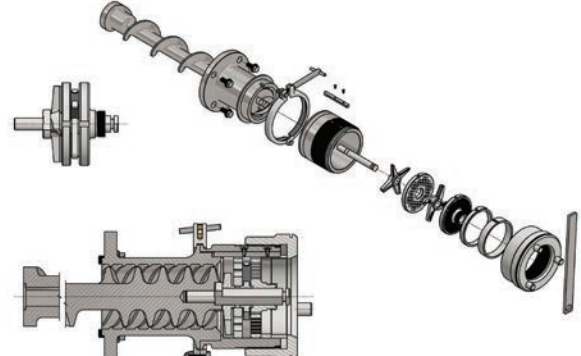
3a. 4000AS-133 (SC) Clamp-On Single Cut Enterprise



3b. 4000AS-135 (DC) Clamp-On Double Cut Unger



3c. 4000AS-134 (TC) Clamp On Triple Cut Unger



3e. 4000AS-140 (Multi Cut Frozen, Knife First)

Thompson Gemini Systems



Pictured: Thompson 6400 Mixer Mincer Gemini System



Pictured: Thompson 4300C Mixer Mincer Gemini System

The Gemini System is used on our full range of Thompson Mixer Mincers from 900 Series up to 5000 & 6000 Series Mixer Mincers.

The connection of the Primary Mixer Mincer (1st machine) into the Secondary Mixer Mincer (2nd machine) is referred to as "Gemini System". This is a very efficient system for continuous mincing as it saves load time into the Secondary Mixer Mincer for the 2nd mincing process. This can greatly improve production processing times and reduce product temperature increase through the process. This Gemini System is utilised in high volume mince portioning lines.

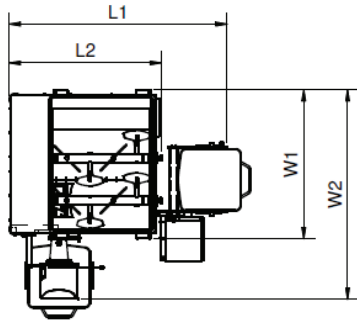
The 1st mince process is generally through larger hole plates of 8mm, 10mm, 12.7mm or larger. The 2nd mince process is through the finer finish hole plate of 3 mm, 4 mm, 5 mm etc. As the minced product is fed from the Primary Mixer Mincer into the Secondary Mixer Mincer, it goes through a mixing cycle to blend the fat to lean (CL) mince meat ratio. This process is generally not used if you are adding ingredients for meatballs, sausage emulsion etc.

ADVANTAGES OF GEMINI SYSTEMS:

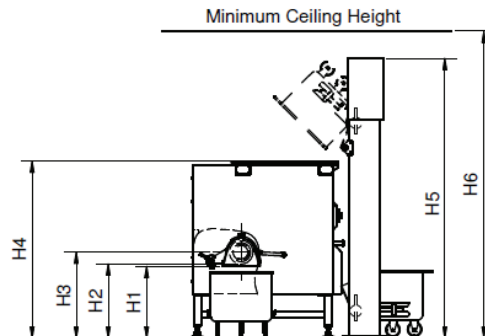
- Systems Complete the 2 cuts in 1 operation.
- 1st cut 3/8" into 2nd grinder for CL blending and 2nd Cut.
- Reduces the lifting requirement of product into the hopper by half.
- Reduces the load height of lifting into the hopper.
- Provides an equipment redundancy backup.
- Mixer grinders can be purchased individually i.e. purchase 1 grinder in preparation of purchasing a 2nd grinder in the future spreading capital purchase cost.



Thompson 5000 Mixer Mincer Specifications (Based on 415v / 50HZ)



TOP VIEW



FRONT VIEW

Machine Model	H1	H2	H3	H4	H5	H6	L1	L2	W1	W2
5000	760	785	1010	1787	2842	3305	2430	1760	1080	1784
5500	760	785	1409	1874	2842	3305	2203	1533	1574	2215
5600	760	785	1409	2222	3412	3500	2547	2465	1574	2215
51000	760	785	1409	2355	3672	3740	2891	2221	1574	2215
51500	760	785	1409	2355	3672	3740	3120	2450	1722	2363
52000	760	785	1409	2355	3672	3740	3570	2900	1722	2363

Dimensions and weight may vary in the course of development.

Machine Model	Bowl Capacity (Top of Paddle)	Bowl Capacity (Top of Bowl)	Mix Capacity	Mix Motor	Mince Motor	**Power Supply	Full Load Current
5000	385	534	2 x 200 L Bins	4 kW	15 kW	80 A	37.4 A
5000	385	534	2 x 200 L Bins	4 kW	22 kW	100 A	48 A
5500	600	890	3 x 200 L Bins	9.2 kW	22 kW	125 A	63.4 A
5600	900	1200	4 x 200 L Bins	9.2 kW	22 kW	125 A	63.4 A
51000	1150	1500	5 x 200 L Bins	11 kW	22 kW	125 A	80 A
51500	1750	2250	7 x 200 L Bins	11 kW	22 kW	125 A	80 A
52000	2500	3005	10 x 200 L Bins	15 kW	22 kW	125 A	92.4 A

**Machine Power supply to be fitted with a "D" Curve Motor Start Circuit Breaker. Technical data is to be used as a guide only and is subject to change without notice.
30 kW & 37 kW VFD motor option available on selected models. Overload Protection to Motors.

Machine Model	Muscle & Trim kg/hr (up to)			Sausage Emulsion kg/hr (up to)	
	½" (12.7 mm) hole plate	¼" (6.35 mm) hole plate	9/64" (3.57 mm) hole plate	¼" (6.35 mm) hole plate	9/64" (3.57 mm) hole plate
56	5000 1st cut	4000 2nd cut	3600 2nd cut	3600 2nd cut	3600 2nd cut
66 (HECS + VFD)	8000 1st cut	7500 2nd cut	7500 2nd cut	7500 2nd cut	6000 2nd cut
GU160	5000 1st cut	4000 2nd cut	3600 2nd cut	3600 2nd cut	3600 2nd cut
U200 (HECS + VFD)	8000 1st cut	7500 2nd cut	7500 2nd cut	7500 2nd cut	6000 2nd cut

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 are subject to change without notice.

Thompson Twin Shaft Mixing Paddle Mixer Mincer

Thompson Twin Shaft Mixer Mincers currently extend to hopper volumes of 3500L which can be increased at customer Request. The Twin Shaft Mixing Paddle Mixer Mincers have larger Hopper Capacity & Batch Mixing Capacity. The **5500 Series Twin Shaft Mixing Paddle Mixer Mincers incorporate the same high-performance mince technology as Single Shaft.**

Increased batch mix capability provides production efficiency from batch mixing time reduction over production day. The **Larger** Total hopper capacity allows Greater Number of bins to be loaded or a larger single bin to be loaded. Both practices are **Improved Production Efficiencies.**

Thompson 5500 Mixer Mincers have a mince output rate of up to 8000 kg per hour 150 kg per minute. A single 200 kg batch will mince out in 1 minute and 20 seconds, 2 bins of course less than 3 minutes. Loading a 3rd bin provides a mince processing timeframe. Operator will be more effective with multitask operations.

Larger Bin i.e. 500 kg bin loading in one loading operation saves significant loader time i.e. one load rather than 3 bins 22 seconds time travel up and 22 seconds time travel down. Very Efficient Production Processing Practice.

Thompson Twin Shaft Mixer mincers have capability to upgrade to 30kW & 37kW mincer gear motor drive. **Increased motor size can provide additional advantages when processing frozen meats.** Thompson Mixer Mincers can easily process frozen Tempered, pre-broken or flaked meat at temperatures of -12°C.

Mincing Output Rates Become More Important with Larger Batch Processing Volumes.

The larger the batch the more critical is to empty the batch from the mixer mincer at fastest rate possible. On completion of the mixing cycle achieving the correct mix and texture. There is additional mix action during the mince discharge cycle as paddles continue to rotate feeding mincer feedscrew. If product is not minced out quickly, additional mix agitation can become destructive with further extraction of protein, and damage to meat particle causing product spoilage if discharge time is excessive.

Larger Hopper Capacity Production with Thompson Twin Shaft Mix Design Provides Improved Production Efficiency.

Thompson 5000 Mixer Mincers Production Rate Improvements with Thompsons Patented H.E.C.S. Mincing System.

1st Cut Mincing Production Rates Achievable processing Fresh Meat through 13 mm Hole Plate

- 5,000 kg/hr 1st cut through 13 mm hole plate
- 8,000 kg/hr or 130 kg/min. with upgraded H.E.C.S. High Efficiency Cutting System & Mince VFD

2nd Cut Mince in Production Rates Achievable processing Fresh Meat through 4 mm Hole Plate

- 3,600 kg/hr 2nd cut through 3 mm hole plate
- 7,500 kg/hr or 130 kg/min with upgraded of H.E.C.S. High Efficiency Cutting System & Mince VFD





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