

Product Catalogue

Process Equipment 2021

The specialisation of new / second-hand equipment, as well as maintenance and automation of machinery for the food & beverage industries.





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Introduction

At Process Equipment (PE), we aim to understand, build and support small business owners and entrepreneurs in the food, beverage, pharmaceutical and allied industry, as we understand the challenges that new business ventures face during startup, growth and transition phases.

PE is situated in Montague Gardens, Cape Town. We specialise in new and second-hand equipment, along with automation and maintenance of machinery for the industry.

Process Equipment as a business is at the forefront of a support-led evolution in the small business and entrepreneurial industry and this partnership brings together the practical expertise of our key role-players, which span over a combined period of 70 years - Giving you as a client, the advantage.

At Process Equipment, our primary focus is to provide the best customer support and build long lasting relationships.



New Equipment



Fabrication



Second-Hand Equipment



Automation

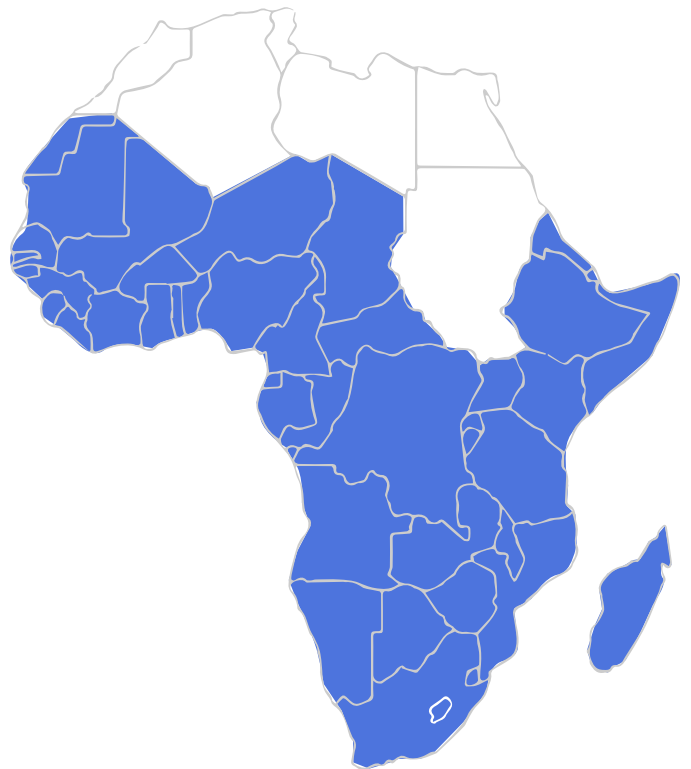


Service Maintenance

**We have lasting
business relationships
with people in the
industry across
Sub-Saharan Africa**

At Process Equipment, we value the importance of meaningful, long-term client relationships. We have adopted a service orientated philosophy which is based on aligning your unique needs and requirements for your business, ensuring we embark on a long-term relationship as we journey together in building and supporting your business. Our main aim is to provide you with peace of mind. We aim to understand, build and support your business and we encourage honest conversations throughout the process. This approach enables us to have meaningful discussions with you about the growth prospects embedded with-in your business.

Once we've established what your unique needs are, our specialists are in a better position to create and implement an effective project plan, perfectly tailored to your needs and you.



Automation

Process Equipment automation seamlessly integrates software and stainless steel to give a machine operating experience par-excellence. A well skilled team and top of the range technological equipment ensures the client is well serviced. The department esteems itself with its programmable logic controllers (PLC's), embedded system controllers and human machine interfaces.

PRODUCTS, SERVICES AND INDUSTRIAL AUTOMATION SOLUTIONS

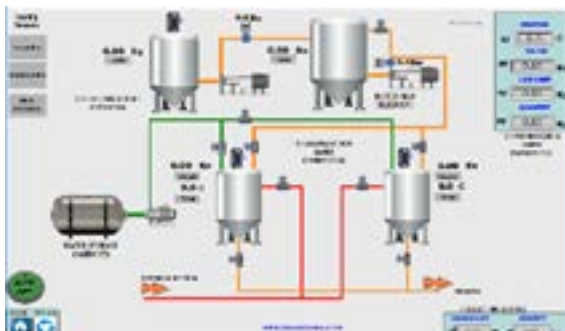
Our automation staff have backgrounds in manufacturing and process control, and are uniquely qualified to understand the needs of clients.

We take full responsibility for the Control System from conceptual design to after-startup support service and everything in between. We make sure that our customers can keep their focus on their line of business by providing worry-free intelligent machinery and control system to run their process.

At Process Equipment we assure our customers peace of mind while we take care of all aspects of the control system including:

- System Architecture Design
- Instrumentation and Control Hardware Selection
- Control Panels Design
- Instruments Procurement
- Control Panels Assembly
- Control Application Software Development & Testing
- Instruments Field Installation
- Field Wiring and Containment System
- Commissioning and Startup
- Interface with Other Control Systems and Subsystem

We go the extra mile and partner with rapidly growing entrepreneurs by supplying business tailor made equipment namely pasteurisers, fillers, conveyor systems and labelling machines.



Technology

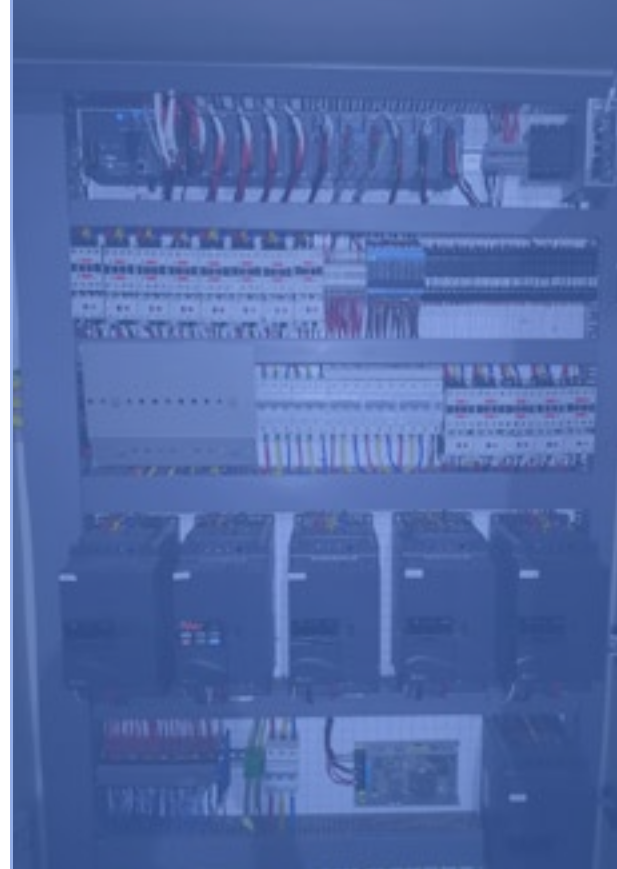
Our in-house capability to design and build electrical power and control panels enables us to be the single source for all of your Electrical, Instrumentation, and Controls needs.

Our technology team of technicians have experience in the design and assembly of various types of low/high voltage panels, FMCG and process engineering industrial equipment whilst adhering to the project specifications. Our technology team complements our automation solutions and facilitates the seamless integration of automation, mechanical and electrical systems.

PRODUCTS, SERVICES AND INDUSTRIAL AUTOMATION SOLUTIONS

Products, Services and Industrial Automation Solutions. Our production capabilities include the design and assembly of:

- Low Voltage Motor Control Centers (LV MCC)
- Variable Frequency Drives (VFD) Panels
- Soft Starters Panels
- DOL and Star-Delta Starters
- Main Distribution Boards (MDB)
- Sub-Main Distribution Panels (SMDB)
- Distribution Boards (DB)
- PLC and I/O Control Panels
- RTU Panels

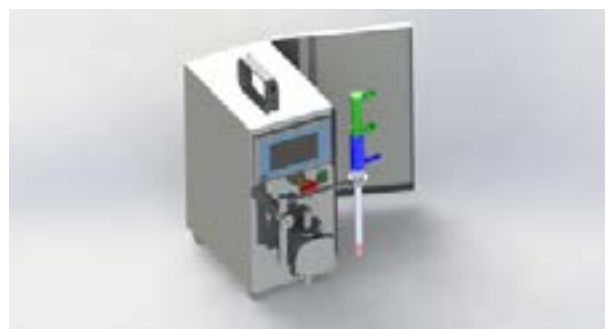
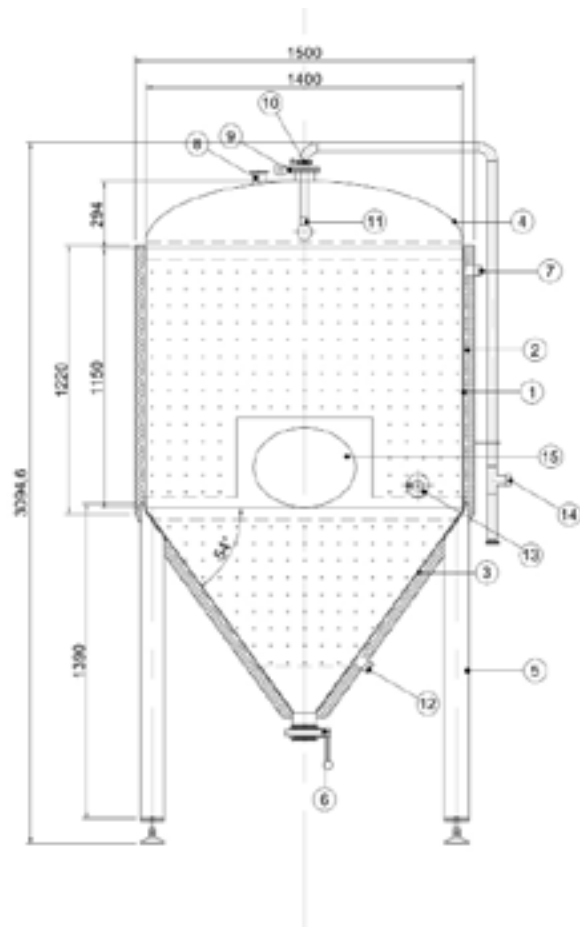


Drafting Office

Turning ideas into the best products possible is why our clients stay in business whether that means making them lighter, faster, stronger, less costly, more beautiful, less wasteful, or all of the above. The Process Equipment Drawing Office delivers quality from your first sketch idea to 3D Renders and physical development of your custom product.

Our clients are able to find out important physical details namely weight, moment of inertia and volume. The drawing office is a key contributor to the fabrication, technology and automation solutions at process equipment.

The drawing office enhances real-time access to information, visibility on assets and resources to ensure better asset management.





Stainless Steel Tanks

Stainless Steel Tanks are best suited for food, beverage, pharmaceutical and allied industries. These tanks can be customized according to their use. Therefore, add-ons such as mixers, a manhole, stairs with a platform, sprayballs, and a breather are available.

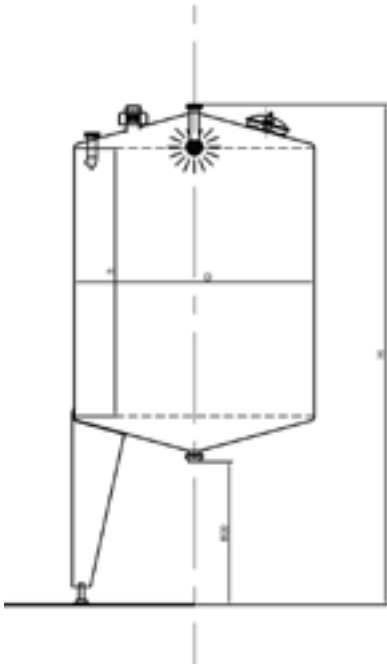


Technical Specifications

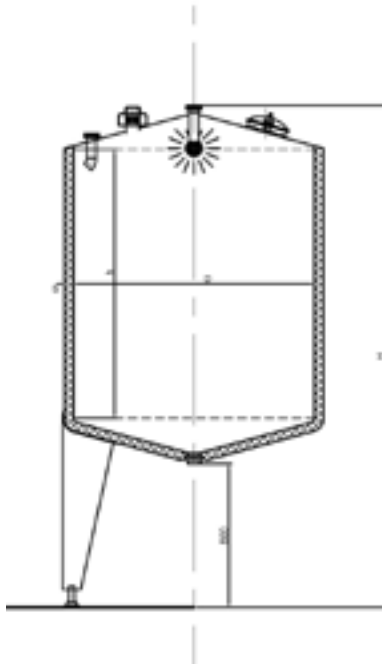
Effective Volume (L)	Dimensions (mm)	Total Height (mm)	Diameter of inlet & outlet (mm)
500	725 x 1000	2250	42
600	920 x 1000	2300	42
700	990 x 1000	2300	42
800	950 x 1220	2500	42
900	1010 x 1220	2500	42
1000	1060 x 1220	2550	54
1500	1160 x 1500	2850	54
2000	1340 x 1500	2900	54
3000	1410 x 1500	3400	54
4000	1620 x 2000	3450	54
5000	1810 x 2000	3500	54
6000	1980 x 2000	3650	54
7000	1930 x 2440	4000	54
8000	2060 x 2440	4000	54
9000	2180 x 2440	4050	54
10 000	2300 x 2440	4050	54
12 000	2270 x 3000	4600	65
15 000	2530 x 3000	4700	65
20 000	2640 x 3660	5400	65

** Stainless Steel Tanks can be made according to special requirements

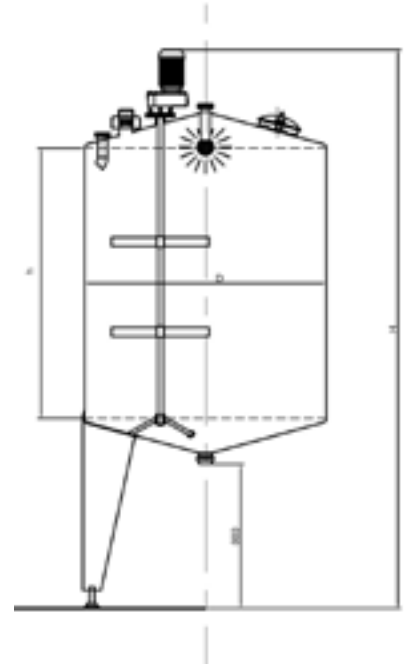
Tank Models/Options



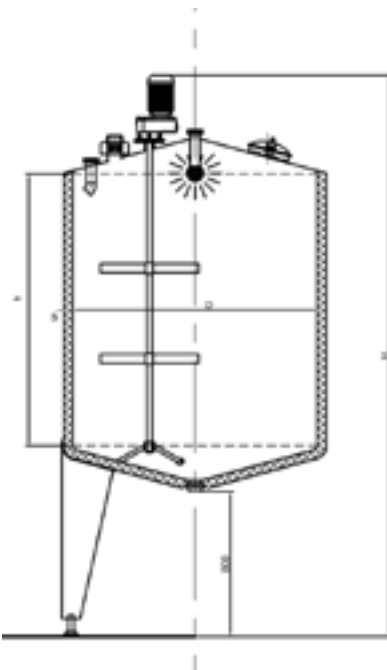
Option 1 - Single Shell Tank



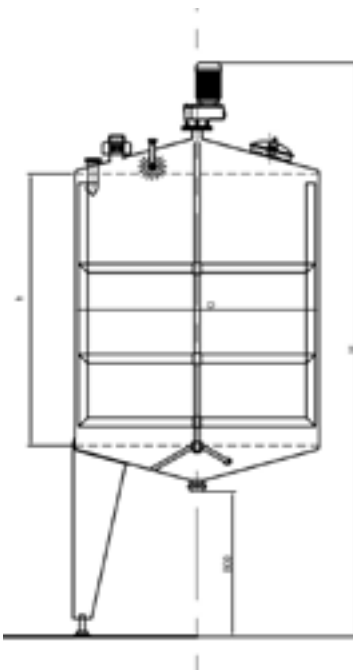
Option 2 - Single Shell Tank



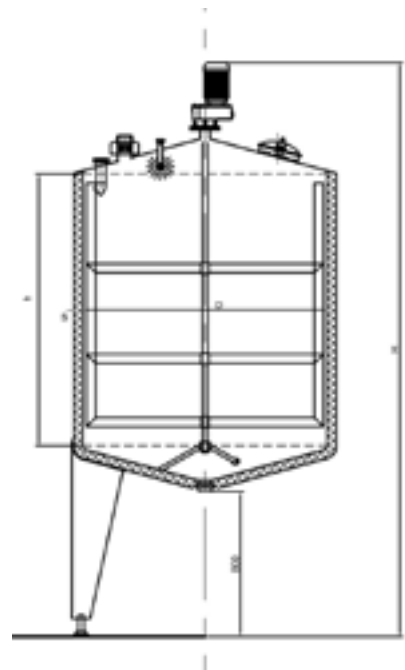
Option 3 - Single Shell with Mixer



Option 4 - Jacketed/Insulated Tank with Mixer



Option 5 - Single shell tank with Gate Mixer



Option 6 - Jacketed/Insulated Tank with Gate Mixer

Cheese Vat

Our Cheese Vat heating kettles are designed for the precision reproduction of milk into dairy products.



Features

- Two Stirrer Types offered: Impeller Type and Three-Part cheese cutter harp.
- Three part insulated construction - energy saving benefits.
- Controlled via a control panel to maintain heating and cooling temperature.
- Use of water jacket to maintain temperature and gradual changes in temperatures.
- Selection of manual or automatic operation.

The design of these is suitable for the manufacture of cheese, curds, ricotta, yoghurt and pasteurized milk. Our range of cheese vats cater for temperatures between 3°C to 100°C and are designed to maintain a set operating temperature. They utilize a water jacket to ensure constant, even heating of the product without any temperature spikes or troughs that may cause damage to the product.

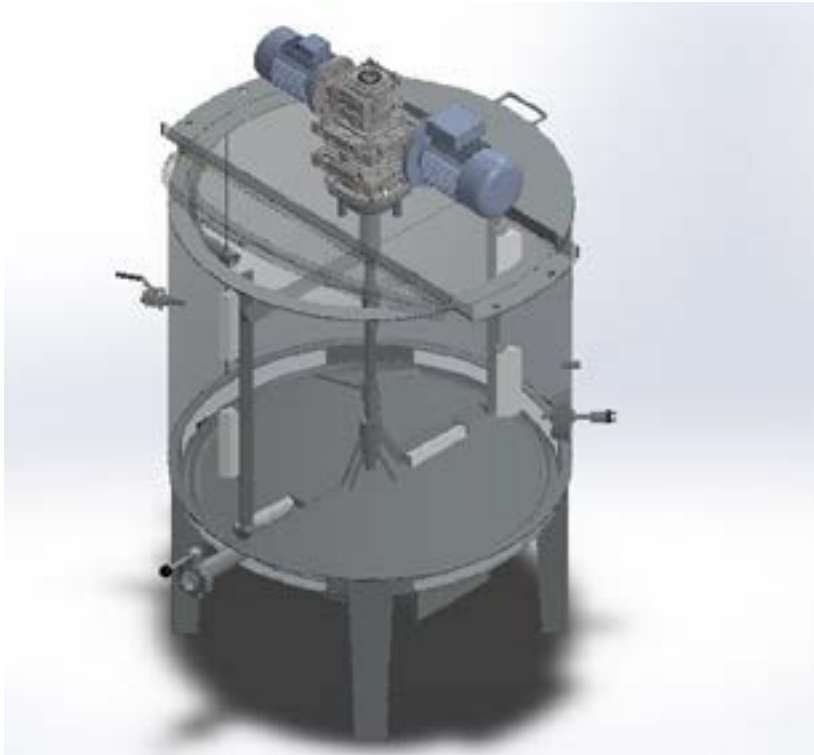


Technical Specifications

Characteristics	Volume Capacity	Heat Capacity	Stirrer	Voltage
Unit	[l]	[C]	[Type]	[V]
CV-250	50-250	90	Standard Propeller	400
CV-500	300-500	90	Three-Part Harp	400/230
CV-1000	550-1000	90		

Steam Vessel

Our Pressure Steam Vessels have been expertly engineered for the heating and mixing of products in processing of a wide range of liquids.



Features

- Counter rotating Gate Mixer with side scrapers ensures
- Precision engineered impeller mixer blades to ensure the best possible mixing takes place and at the optimum fluid flow
- Controlled via a control panel utilizing our PLC programming to maintain heating and cooling temperature as well as mixing speeds
- Use of water jacket to maintain temperature and gradual changes in temperatures
- Selection of manual or automatic operation

The design of these is suitable for the manufacture of various liquid at different viscosities. It incorporates specially designed impeller blades to ensure complete mixing of product as well as a counter rotating Gate Mixer, complete with side scrapers, to aid in the mixing process and ensure there is no unmixed product deposited on the tank walls.

The heating is done through a pressurized steam jacket. This ensure even heating of the tank and its contents while maintaining a consistent temperature and preventing any large spikes or changes in temperature.



Technical Specifications

Characteristics	Volume Capacity	Heat Capacity	Stirrer	Voltage
Unit	[l]	[C]	[Type]	[V]
CV-400	300-500	90	Counter - Rotating Mixer	400/230
CV-500	550-1000	90		

Batch Pasteurizers

These are designed for the sterilization of various product in specific quantities.



This is achieved through the heating of the designed product to a determined set temperature, for a given period of time and then cooling of the product within the tank.

It utilizes a specially designed heating jacket heating and cooling jacket, which is holds the product at a consistent temperature, to ensure that the optimum temperatures are achieved in for the product within this process. Due to this, there are no large temperature fluctuations in the product as both the heating and cooling curves are smooth with no major spikes or troughs.

In addition to this, these pasteurizes also provide a mixing process, which also ensures that an even temperature is achieved throughout the tank.

This process is fully automated, utilizing our PLC programming to maintain all set temperatures, mixer speeds, flow of heating and cooling water and product flow.

The entire system can be cleaned and sanitized CIP system that can easily be integrated when maintenance needs to take place.

Type	Capacity (L)	Temperature Range (°C)	Steam Pressure (kg)	Power (kW)	Dimension (mm)	Weight (kg)
BP -1	100	20 -70	2.5	1.9	Ø477, h=500	500
BP-2	200	20 -70	2.5	2.2	Ø724, h=600	520
BP-3	300	20 -70	2.5	4	Ø796, h=625	560
BP-4	500	20 -70	2.5	7.5	Ø955, h=750	600
BP-5	750	20 -70	2.5	9	Ø955, h=1000	660
BP-6	900	20 -70	2.5	11	Ø955, h=1250	700
BP-7	1000	20 -70	2.5	12.5	Ø955, h=1500	750

Heat Exchange

The Heat Exchangers offered are plate type and are ideal for the heat transfer of liquid – liquid or liquid – steam systems in order for the temperature control of the required product.

This product offers a high heat exchanging efficiency, which minimizes any heat losses in a compact structure that is lightweight. It has a small physical footprint which allows it to be easily installed in the required processing system.

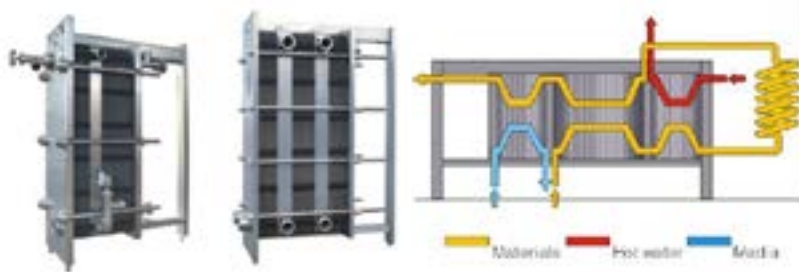


Table 1 Milk Collection cooler

Type	Flux	Area (m ²)	Material Diameter (mm)	Medium Diameter (mm)	Dimension (mm)	Weight (kg)
MCC-1	1000	1	25	25	350 x 210 x 600	60
MCC-2	2000	2	38	38	600 x 285 x 810	85
MCC-3	3000	3	38	38	600 x 285 x 810	95
MCC-4	4000	4	51	51	600 x 470 x 1400	240
MCC-5	5000	5	51	51	600 x 470 x 1400	250
MCC-6	6000	6	51	51	600 x 470 x 1400	260
MCC-7	8000	8	63	63	600 x 470 x 1400	280
MCC-8	10000	10	63	63	600 x 590x 1600	380
MCC-9	12000	12	63	63	600 x 590x 1600	400

These heat exchangers offer a dismountable plate design which allows it to be changed to any system, including after installation with the plates able to be increased or decreased where necessary.

Maintenance on these is also very convenient with zero dead corner, meaning CIP cleaning can take place with no need for onsite disassembly.



Table 2 Yogurt Heat Exchanges

Type	Flux	Area (m ²)	Material Diameter (mm)	Medium Diameter (mm)	Dimension (mm)	Weight (kg)
YHE-1	3000	4	36	36	600 x 470 x 1400	240
YHE-2	4000	6	51	51	600 x 470 x 1400	250
YHE-3	5000	8	51	51	600 x 470 x 1400	260
YHE-4	6000	10	51	51	600 x 470 x 1400	280
YHE-5	7000	12	51	51	600 x 590 x 1600	380
YHE-6	8000	15	51	51	800 x 590 x 1600	400
YHE-7	10000	18	63	63	800 x 650 x 1600	490
YHE-8	12000	36	63	63	800 x 650 x 1600	680



Pasteurizers

These pasteurizers the transfer of heat from a working fluid to sterilize products, such as dairy, and make them safe to use.



The pasteurizers offered are designed for the optimised forced convection heat transfer by adopting a corrugated plate structure leading to a transfer rate of 92%.

This process allows for the shelf life of the product to be increased.

This is achieved, even at lower product speeds through the pasteurizer, as the flow of the fluid within the plates is optimized to maintain turbulent flow and therefore reducing thermal resistance and hence maintaining heat transfer efficiency.

The equipment used can be designed to cater to numerous requirements such as heating, sterilization, heat preservation and cooling needs.

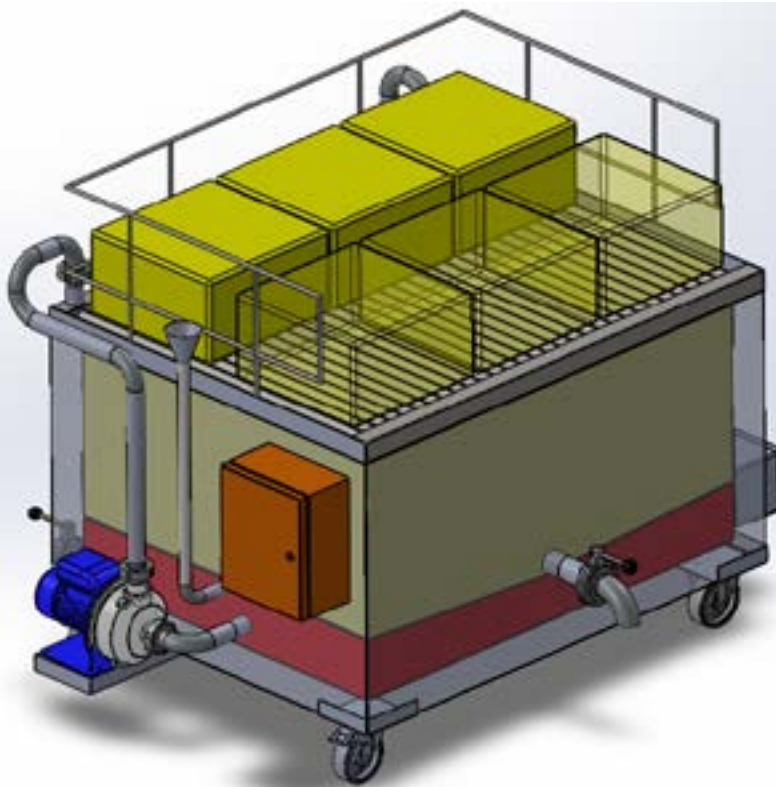


Type	Capacity (T/h)	Steam Consumption (kg/h)	Steam Pressure (kg)	Water Flow (T/h)	Power (kW)	Dimension (m)	Weight (kg)	Diameter (mm)
MP-1	1	20	2.5	3	1.9	1.6 x 1.4 x 1.8	560	25
MP-2	1.5	30	2.5	4.5	2.2	1.6 x 1.4 x 1.8	560	25
MP-3	2	94	2.5	6	4	2.0 x 1.8 x 2.0	560	38
MP-4	3	141	2.5	9	4	2.0 x 1.8 x 2.0	630	38
MP-5	4	188	2.5	12	4	2.0 x 1.8 x 2.0	710	38
MP-6	5	235	2.5	15	5.5	2.3 x 1.8 x 2.0	760	51
MP-7	6	282	2.5	18	5.5	2.3 x 1.8 x 2.0	850	51
MP-8	8	376	2.5	24	5.5	2.3 x 1.8 x 2.0	980	51
MP-9	10	470	2.5	30	7.8	2.5 x 1.8 x 2.0	1590	51

Fat Melting Bath

The fat melting bath are used to melt down fat blocks.

Fat is placed on a heated grid and melts down by dripping in holding tank that are also heated and isolated. Water is heated by ceramic elements and circulated by pump through the grid. Unit has a control panel and can be mobile or stationary. Different sizes and volumes can be done as required.



Technical Specifications

Material	Tank Capacity	Power Rating	Size	Loading height	Outlet
304/316 Stainless steel	500 liters	17kW / 28 Amps	1630mm long x 1000mm wide	875mm	NW40

Gear Filler

Our gear fillers are designed for the optimum filling of clear, viscous fluids such as lubricants, oils, shampoo or lotions.



Semi-automatic Gear Pump Filler



Semi - automatic Double Nozzles Gear Pump Fillers



Semi-automatic Cream Gear Pump Filler

Technical Specifications

Filling Volume	10ml - 10 000ml
Filling Accuracy	± 1mm
Compressed air pressure	0.4 - 0.6MPa
Capacity (for single)	100ml - 24 fills/min 300ml - 16 fills/min 1000ml - 10 fills/min
Voltage	220V
Size	310 x 480 x 310 mm 460 x 480 x 310 mm 310 x 480 x 650 mm
Machine Weight	18 - 36kg

They are specifically made for high accuracy and precision filling of these fluids. The filling speed and time between filling cycles can be controlled on the HMI touchscreen. This also allows multiple fillers to be placed inline to one another.

Our fillers have a Semi-automatic functionality and can be used with single or double nozzles for liquid filling, with a shut-off function to optimize filling and prevent drips. All parts are made from high corrosion resistant 316 Grade Stainless Steel protecting the product and maintaining the integrity of the machine



Food and Drink



Dairy



Medical/Cosmetic



Chemical/Industrial

Piston Filler

Piston Filler manufactured from stainless steel, Grade 304 or 316. The filler is primarily for liquid products and has a fully adjustable feature. The filler is controlled by means of compressed air and has a manual and auto functionality.



Horizontal Single Head
Liquid Filling Machine



Horizontal Double Heads
Liquid Filling Machine



Horizontal Single Head
Paste Filling Machine



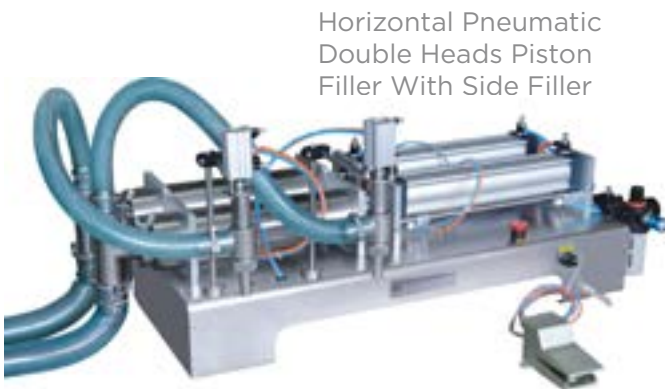
Horizontal Double
Heads Paste Filling
Machine

Technical Specifications

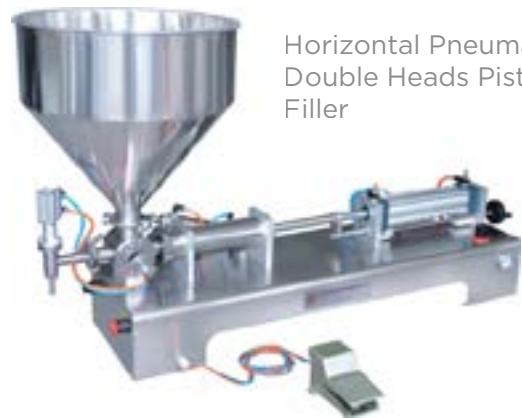
Model	PTPF-60P	TPF-250	PTPF-500	PTPF-1000
Power Supply	110V220V 50HZ - 60Hz			
Filling Range	5 - 60ml	25 -250ml	50 - 500ml	100 - 1000ml
Filling Accuracy	± 1.5%			
Operation Mode	Pneumatic			
Air Pressure	4 - 6kg		5-8kg	
Filling Speed	5 -40 (times/min)			
Overall	1030 x 340 x340mm			

*to operate a piston filler, an air compressor is required

Full Pneumatic



Horizontal Pneumatic
Double Heads Piston
Filler With Side Filler



Horizontal Pneumatic
Double Heads Piston
Filler

Customized Machine



Horizontal Single Head
Piston Filler With
Heating Tank



Horizontal Double
Heads Piston Filler With
Heating Tank



Horizontal Single Head
Paste Filling Machine



Horizontal Double Head
Paste Filling Machine
With Mixing Tank

Optional Hoppers



Luxury Hopper With
Tropical Mixing 40L



U-type hopper with
mixing (50/60L)



Common Hopper with
heating 40L



Ordinary hopper with
tropical mixing 40L



Small Hopper
(Standard 30L)



Big Hopper
(Standard 40L)

Our Piston Fillers incorporate a simple design which yields a high accuracy with an ease of operation to allow for efficient running of the machine. These fillers are fully adjustable with the filling volume and filling speed both able to be altered to best suit each specific job requirement. Fillers can incorporate a single and double nozzle models with these nozzles designed to be drip proof feature.



Luxury hopper with
heating 40L
(Standard 30L)



Pressure
hopper 40L

They are manufactured from 304 and 316 Grade stainless steel making them suited for the filling of medicine, dairy, foodstuff pesticides and other liquid products including any pastes or other thicker liquid products.

Liquid Weight Filler

Our Liquid Weight Fillers are designed with an easy to use filling system that works at a high efficiency and accuracy to ensure the most accurate and fast filling operation of liquid products.



Technical Specifications

Filling Range	0ml - 5000ml
Measurement Precision	± 0,5%
Working Power	220VAC
Air Pressure	5 - 7kg/cm ²
Air Consumption	0.8m ³ / min
Power Rate	1.5kw-3kw
Other Device Power Rate	5.5kw (air-compressor)
Net Weight	± 150kg
Counter Size	800mm x 900mm x 1170mm

Features

- This weight-filler makes use of a scale as a metering device for accurate filling.
- Filling can be done by positive displacement pump.
- The weight-filler speed is controlled by the drive and PLC, which is adjustable from 0 to full speed.
- The touch-screen HMI, gives control to the user over the various functions: volume, speed, and parameter settings.
- Includes a pneumatic shut-off nozzle to prevent dripping and loss of product.
- The filling speed and filled weight is fully adjustable to allow it to be best suited for the job it is being in.
- Our fillers work on a 2-stage step to guarantee an accurate filling process. The weight is controlled with a load cell and adjusted on the batch controller.
- They are manufactured to the highest procession using 304 Grade stainless steel making them suited for the filling of liquid products intended for consumption.

Powder Weight Filler

Our Powder Weight Filler are designed with an easy to use filling system that works at a high efficiency and accuracy to ensure the most accurate and fast filling operation of fine powder products



Features

- This weight-filler makes use of a scale as a metering device for accurate filling.
- Filling can be done by flexi-flow conveyor system.
- The weight-filler speed is controlled by the drive and PLC, which is adjustable from 0 to full speed.
- The touch-screen HMI, gives control to the user over the various functions: volume, speed, and parameter settings.
- The filling speed is fully adjustable to allow it to be best suited for the job it is being in while the weight is controlled with a load cell and adjusted on the batch controller ensuring accuracy of filling. Our fillers work on a 2-stage step to guarantee a precise filling process.

Technical Specifications

Filling Range	1kg -60kg
Measurement Precision	30,5%
Working Power	220VAC
Power Rate	1.5kw
Net Weight	340kg

- They are manufactured to the highest procession using 304 Grade stainless steel making them suited for the filling of fine powders intended for use in the production of consumable products.



Tube Fillers

Our Tuber Fillers are designed for the accurate filling of plastic tubes intended for various product and use cases. These run with complete, or partial, automation, utilizing GMP and a PLC controller to ensure the machine runs and operates optimally at all times.



Automatic Fillers

Model	ATF-1	ATF-2
Motor Power	2kW	1.5kW
Sealing Power	3kW	Tube Folded
Tube Material	Plastic/Composite Tube	Metal/Aluminium Tube
Tube Diameter	10-50mm	10-30mm
Tube Length	60 - 220mm	
Filling Volume	5 - 250ml	
Filling Accuracy	± 1%	± 1%
Speed	30-60 pcs/min	30-40 pcs/min
Air Pressure	0.55-0.65MPa	
Machine Size	2620x1020x1980mm	
Machine Weight	1000kg	
Required Air Compressor	≥7.5kW 200L	



ATF 1 Automatic
Plastic Tube Filler



ATF 2 Automatic
Aluminium Tube
Filler

Semi - Automatic Fillers



Model	SATF - 1	SATF - 2	SATF - 3
Voltage	110/220V		
Power	1.5kW		
Tube Material	Plastic/Composite Tube	Metal/Aluminium Tube	Plastic/Composite
Tube Diameter	10-50mm	10-30mm	15-50 mm
Tube Length	60 - 220mm		
Filling Volume	5 - 250ml		
Filling Accuracy	± 1%		
Speed	10-20 pcs/min		
Air Pressure	0.55-0.65MPa		
Machine Size	1100x780x1450mm		1100x850x1450mm
Printing Letter Size	2X3mm		
Required Air Compressor	≥3kW 100L		



SATF 1 Semi-Automatic Plastic Tube Filler



SATF 2 Semi-Automatic Aluminium Tube Filler



SATF 3 Semi-Automatic Ultrasonic Plastic Tube Filler

In-Line Gravity Filler



Technical Specifications

Filling Range	100ml - 5000ml
Measurement Precision	± 0,5%
Working Power	220VAC
Air Pressure	5 - 7kg/cm ²
Air Consumption	0.8m /min
Power Rate	1.5kw
Other Device Power Rate	5.5kw (air-compressor)
Net Weight	±80kg
Counter Size	1200mmx1100mmx1800mm

The 8-head gravity filler utilizes specifically designed shut-off nozzles operated by pneumatic cylinders. These are controlled by a fully adjustable timing device for each platform meaning the filling of each head can remain optimal. The header tank is controlled by a special Flow Control System which maintains a consistent Absolute Pressure to ensure maximum filling speeds are achieved.

Labelling Machines

We offer a wide range of labelling systems to cater to your specific needs.

These come in two categories: Tabletop Labellers and Inline Units with the main differences being size and integration into your current manufacturing process.

Tabletop Labellers



Orientational Labeller



Horizontal Labeller



Inline Single Labeller

Our Tabletop labellers are designed for fast, efficient and accurate labelling of bottles. They incorporate a semi-automatic functionality and compact design to allow ease of integration into any operation, especially those of lower scale. It incorporates a PLC program to monitor and control the labelling output which ensures precision labelling of the product and efficient running of the machine.

Technical Specifications

Voltage	110V/220V
Power	400W
Driving Motor	Stepper Motor
Operation	Left to Right
Labelling Speed	10-40pcs/min
Label Size	L: 30 -160mm W: 0-100mm
Bottle Diameter	30-100mm
Labelling Accuracy	± 1mm
Maximum Label Rollout Diameter	260mm
Minimum Label Rollout Diameter	75mm
Machine Size	1200x900x600mm 1200x950x750mm
Machine Weight	150kg

Inline Labellers

Sleeve Labelling Machine



Technical Specifications

Voltage	220V
Power	15kW
Labelling Speed	100-400pcs/min
Labelling Accuracy	± 1.5mm
Product Diameter	28-125mm
Label Size	L: 25-280mm T: 0.035-0.13mm
Bottle Height	15-320mm
Machine Size	1100x1300x2000mm

Designed for the precise, high-tolerance labelling of bottles with high efficiency. Adjustable cutter head uniquely designed for cyclotron, double-sided blade cut-offs, maintaining labelling precision.

The machine comes with a single positioning guide pillar to ensure stability of the labels during the labelling process and incorporates a bottle screw to prevent shake off and ensures they maintain the optimum position.

Easy to use control screen displays all relevant information and allows any adjustments to be made quickly and easily.

Single Head Labellers

Vertical Self-Adhesive Labeller

Fully automated design which detects bottle diameter to match and automatically adjust parameters accordingly. It incorporates a simple to use touchscreen to adjust labelling presets and display any error or fault messages.

Technical Specifications

Voltage	220V
Labelling Speed	60-100pcs/min
Labelling Accuracy	± 1mm
Bottle Height	40-250mm
Label Size	L: 10-150mm T: 15-300mm
Bottle Diameter	76 -300mm
Machine Weight	180kg
Machine Size	1800x800x1300mm



Double Head Labellers

Oriental Labeller

Designed for precision and accurate labelling of bottles. Features fully automated labelling which adjusts to whether there is a square or round bottle as well as detecting the labelling plane of the square bottles and the diameter of the round bottles. Our labellers employ a unique label stroking mechanism to ensure non-wrinkling on application.

Technical Specifications

Voltage	220V
Power	1.04kW
Labelling Speed	45-80pcs/min
Labelling Accuracy	± 1.5mm
Product Size	80-150mm L: 20mm-250mm, W: 50-150mm
Label Size	L: 20-80mm W: 20-100mm
Machine Weight	240kg
Machine Size	2400x700x1100mm

Vertical Servo Labeller

Suitable for automatic labelling of round containers for food, medicine, and fine chemical products such as vial and oral liquid bottles. It adopts a controlled design which is conveniently operated using an easy to use touchscreen. This aids to the high-speed and precise labelling of products.

Technical Specifications

Voltage	110/220V
Power	1200kW
Labelling Speed	200-300pcs/min
Labelling Accuracy	± 1mm
Bottle Height	40mm-250mm
Label Diameter	75-300mm
Machine Weight	260kg
Machine Size	2500x1300x1500mm



Cup Filling and Sealing Machine

Our Rotary Cup Filling machines have been designed for the automatic process of dispensing, filling and sealing with foil of cups.



They adopt a compact structure, simple operation with a high degree of automation and a high production efficiency. These can perform numerous functions to suit specific production needs and can fill and seal various product into containers of different sizes and shapes.

All parts are made of stainless steel, aluminium alloy, copper and anti-corrosive material making it suitable for the filling of pastes, sauces, granules and powders which are used in the production of food. These have been made to be easily operated and maintained throughout their lifecycle.



Technical Specifications

Voltage	220V
Power	1.7kW
Air Pressure	0.5-0.7 MPa
Production Speed	600 - 800 pcs/hr
Filling Accuracy	± 1%
Heat Sealing Power	0 - 400 °C
Sealing Material	PP, PE, PET
Machine Size	1000 x 1000 x 1500mm
Machine Weight	350kg

Tri-Blender

The tri-blender is suitable for mixing powders to liquids. This includes two types; (1.) High-shear or (2.) CIP. Each pump is independent and each is fitted with an 380 volt online starter.



Our Tri-blenders are precision engineered for the effective mixing of powders into liquid solution and utilize an inline pump to ensure the constant circulation of fluid throughout the system. The intake rate of the powders is valve controlled ensuring the optimum concentration can be found for the desired solution. We utilize pumps that are able to function independently from one another and each come equipped with an online starter.

All contact parts are manufactured to the highest procession using 304 Grade stainless steel making them suited for the mixing of any products intended for consumption.

Our Tri-blenders come in two ranges: High Shear and CIP. These cater for all possible job requirements and can be utilized for various mixing applications depending the product being used.

Technical Specifications

Model	Capacity (L/H)	Power(kw)	Rotation Speed (RPM)
TRL-B-140	100-4000	4	2800/1400
TRL-B-165	300-6000	5.5	2800/1400
TRL-B-165	300-8000	7.5	2800/1400
TRL-B-180	1000-10000	11	2800/1400
TRL-B-180	1000-12000	18	2800/1400
TRL-B-200	1000-20000	28	2800/1400
TRL-B-200	1000-25000	22	2800/1400
TRL-B-230	2000-40000	30	2800/1400
TRL-B-230	2000-50000	30	2800/1400



Ribbon Blender

Our Ribbon Blenders are specially designed for the fast and efficient mixing by our precision engineered double helix ribbon agitators.



Agitators are pitched in opposite directions to one another and have been expertly selected to run at the optimum speeds, at the lowest power draw to ensure the most effective mixing takes place in the shortest period of time. All of this guarantees thorough blending without any possible degradation of the product during this process.

Our Blenders come in a variety of sizes and motor capacities to cater for scale of operation as well as nature of the product being mixed. All contact parts are manufactured from 304 Grade stainless steel making them suited for the mixing of dry and powder food products intended for consumption.

Stage 1

Rotating of the precision engineered ribbon impeller causes motion in fluid

Stage 2

Outer ribbon agitates powder forcing it toward the centre shaft.

Stage 3

Inner ribbon does the counter by forcing powder to the outer edges of the tank

Stage 4

Mixing takes place at the intersections where these particles are forced together.



Technical Specifications

Ribbon Blender Size	250Lt	500Lt	1000Lt	3000Lt	5000Lt	7000Lt
Trough Length	1070mm	1500mm	2100mm	2800mm	3000mm	3200mm
Diameter	550mm	650mm	850mm	1150mm	1500mm	1610mm
Motor	2.2kw	3.5kw	11kw	22kw	34kw	55kw
Output Speed	28rpm	28rpm	28rpm	28rpm	28rpm	28rpm

Auger Conveyor

Our Auger Conveyors are engineered for the transport of dry products, sugar and powder products, by means of a spiral screw conveying system to be gravity fed into a vessel, tank or process system.



Stage 1

Rotating screw conveyors dry powders up the shoot

Stage 2

While the powder is being conveyed it is agitated, mixing the contents during this process.

Stage 3

This allows complete mixing of any products that were unmixed prior to conveying

Stage 4

Final, mixed product is deposited at the top of the shoot to the next processing tank or container which is required.



This system also ensures a continuous mixing of product throughout its operation. They are designed for the fast and efficient transport of products at the optimal speeds and power draw to ensure the machine maintains good working conditions. All contact parts are manufactured from 304 or 316 Grade Stainless Steel and the system remains dust-free making it easy to clean.

Belt-Type Conveyor

Stainless steel conveyors are manufactured in various lengths with options such as motor drive, speed control, idler end, or extensions.

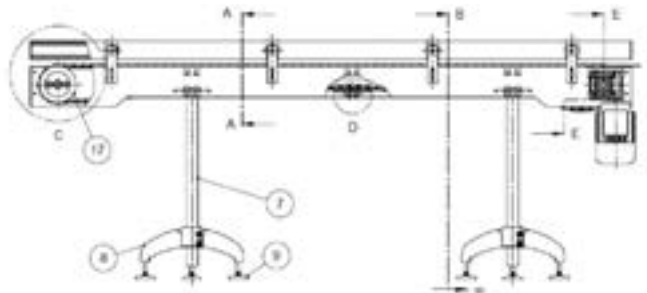


Our Belt-Type Conveyors are specially made to be integrated into any production moving products between stages of production. These can be manufactured to specified length requirements to fit your current production needs. Specifications that can be set and built to include: motor drive, speed controller, idler end and extension options.

Our Conveyors are built from Stainless Steel, making them ideal for all food processing plants in the industry.

Added Options

- 2.5m Conveyor
- Geared Motor
- Extension for Conveyor (up to 10m)
- Geared Motor End
- Idler
- 90 Degree Conveyor bend



Agitator Mixer

The agitator mixer is a versatile, medium duty mixer and agitator, that can be used for blending of a large variety of products.



Specially designed Hydrofoil agitator used for various mixing applications with a range of speeds and viscosities. Engineered to maintain the set speeds and minimize any possible stresses in the shaft to extend the lifespan of the mixer and adhere to the integrity of the solution.

Stage 1

Rotating of the precision engineered impeller causes fluid to flow in a circular pattern about the impeller blade dependant on the design of the impeller blade.

Stage 2

The cycling of fluid causes the fluid to be turned over and therefore mixed within the tank. This is dictated by the specified speed of the shaft.

Stage 3

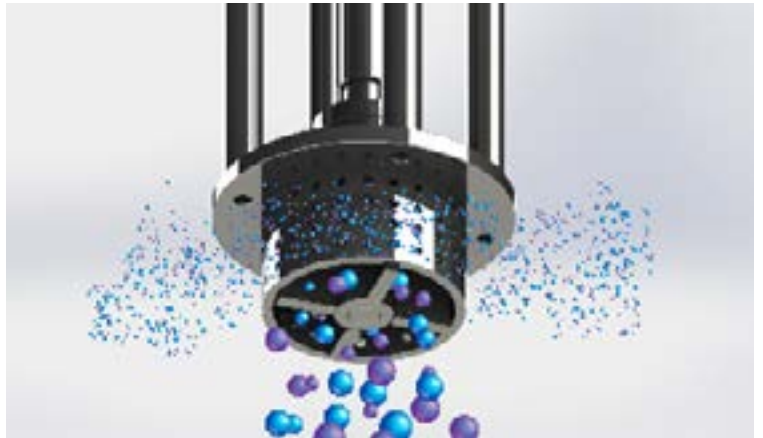
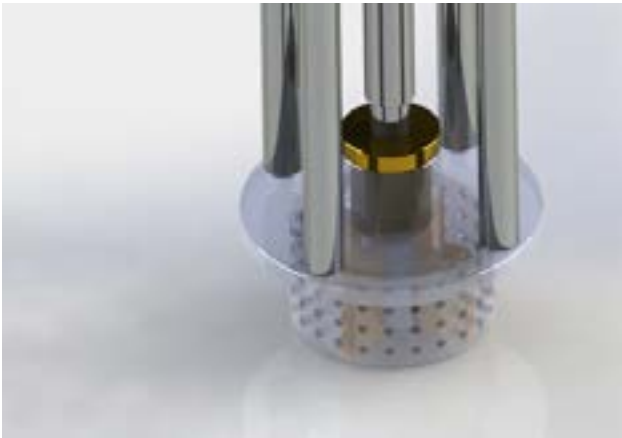
As the fluid passes the blade again it is intensely sheared which aids in the mixing. This shearing decreases the size of the fluid particles which decreases the overall mixing time and allows a homogenous solution to be reached.

Model	Volume Capacity	Speed	Motor Rating
Unit	[l]	[RPM]	[kW]
AM-25	250	200	0.5
AM-50	500	200	0.5
AM-1	1000	200	0.5
AM-2	2000	200	1.1
AM-3	2500	200	1.1



Homogenising Mixer

Homogenising mixer is suitable for emulsions, various shear and blending applications. The mixer is manufactured to your requirements based on product and vessel specifications.



Model	Volume Capacity	Speed	Motor Rating
Unit	[l]	[RPM]	[kW]
HM-30	5-50	2800	1.5
HM-80	50-100	2800	2.2
HM-100	200-800	2800	7.5
HM-120	300-1000	2800	11
HM-140	500-1500	2800	18.5
HM-160	800-2000	1400	22
HM-180	1000-3000	1400	30
HM-200	1500-5000	1400	37
HM-220	2000-8000	1400	55
HM-240	3000-10000	1400	75

High shearing rate mixers which utilize a high velocity blade to create a vacuum and produce maximum shear within the mixer head. Decreases mixing time of immiscible fluids. Interchangeable heads depending on the application.

Gate Mixer

Ideal for low to moderate mixing speeds. Engineered with side scrapers which are used to eliminate deposition of any unmixed product on tank walls and ensure that all product within the vessel is turned and mixed.



Stage 1

Rotating of precision engineered impeller causes the turning over of fluid and cycling of fluid inside the vessel.

Stage 2

Fluid is sheared at the low speed impeller blades which allows it to be mixed within the vessel.

Stage 3

Counter rotating gate causes low speed shearing of unmixed fluid at the circumference of the vessel and reducing the concentration of unmixed product in the tank at lower rotational speeds

Stage 4

Any unmixed product present on the vessel wall is collected by specially designed side scrapers which are mounted to the gate and ensure a complete mix is obtained.

Model	Volume Capacity	Speed	Motor Rating
Unit	[l]	[RPM]	[kW]
GM-25	250	200	0.5
GM-50	500	200	0.5
GM-1	1000	200	0.5
GM-2	2000	200	1.1
GM-3	2500	200	1.1

Blade Mixer

High shear mixer used for large scale mixing at high speeds. Used for pastes and other blending and mixing applications. Greatly decreases mixing time, allows for the blending of solid material into the mixture as well as providing minimal drag and torque on the shaft



Model	Volume Capacity	Speed	Motor Rating
Unit	[l]	[RPM]	[kW]
D-60	50-250	2840	2.2
D-80	150-500	2890	4
D-100	300-800	2900	7.5
D-120	500-1000	2930	11
D-140	600-1200	1460/2930	15
D-160	800-2000	1470/2930	18.5
D-180	800-2500	1470/2940	22
D-200	1000-3000	1470/2950	30
D-220	1000-3500	1480/2950	37
D-240	1500-4000	1480/2970	45
D-260	1800-5000	1480/2970	55
D-280	2000-6000	1480/2970	75
D-300	3000-8000	1480/2970	90

Stage 1

High speed rotating precisely engineered disperser blade causes consistent cycling of fluid within the vessel.

Stage 2

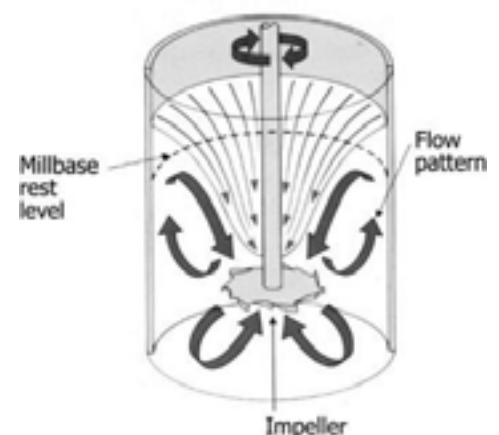
This causes the fluid to be drawn toward and along the rotating blade as a suction force is applied to the fluid due to the centrifugal forces present in the mixture as the fluid is being turned

Stage 3

Shearing as well as blending of fluid and solid product takes places at the high-speed disperser blade.

Stage 4

Homogenous mixtures are reached as fluid and blended product are combined.

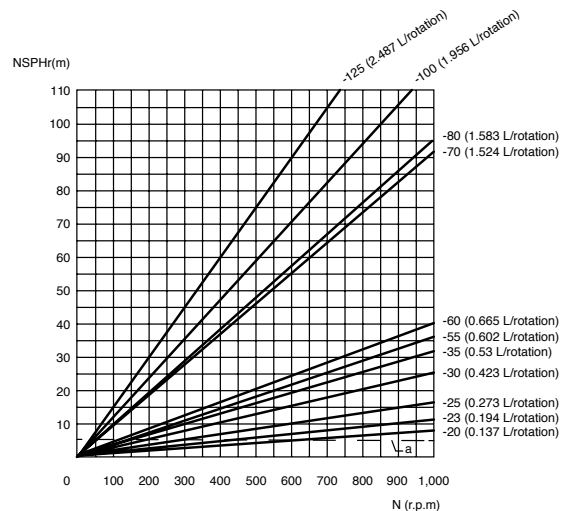
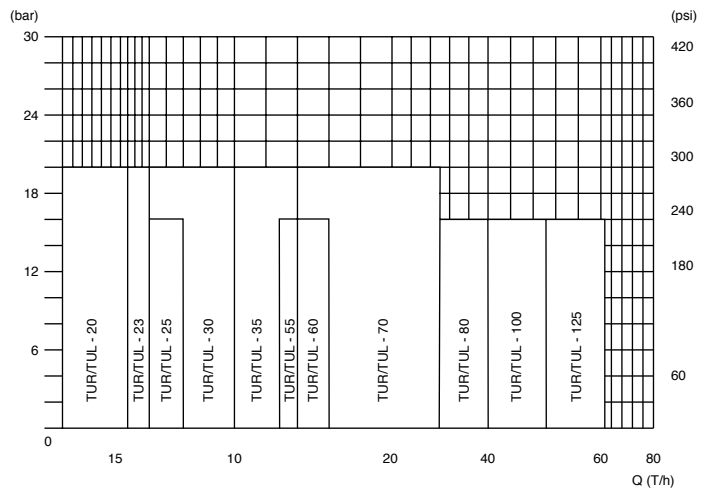


TU Series Lobe Pump

The TU Series Lobe Pump is a solution for reversible, high pressure, high and low viscosity, solid particles, high cleaning solution.



TUR/TUL lobe pump flow Q(T/h)-pressure (bar) graph



Technical Specifications

Max Flow	90m/h/395 GPM
Max Pressure	15bar/220 Psi
Max Temperature	150°C /302°F
Max Rev.	250rpm
Material	316L, 1.4404 ASME BPE 316L, 1.4435 NB2 Fe ≤ 0.5%
Certification	3-A-02-11 No. 1759; FDA 177.2600; CE-MD/06-42 No. 705201402401 - 00

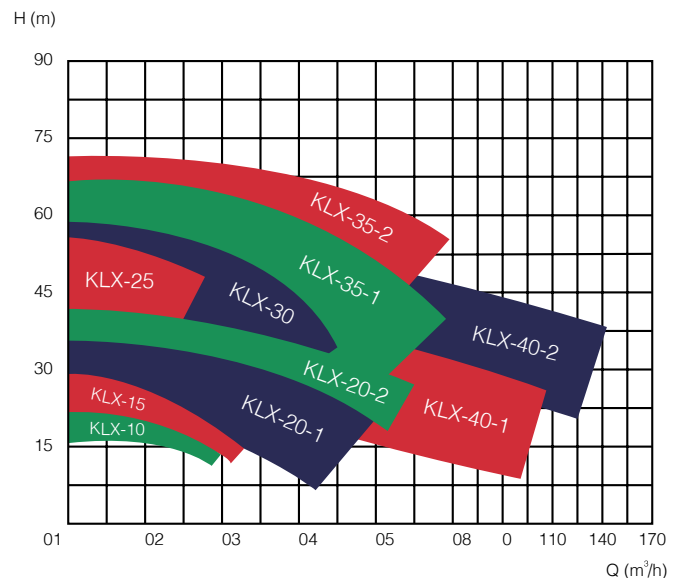
DJ-KLX Series Centrifugal Pump

The DJ-KLX Centrifugal Pump is a high performance hygienic pump with an open impeller design.



This Centrifugal Pump is a high-performance, low noise, high purity and hygienic pump with an open impeller design. It achieves this through optimizing the internal structure, such as the impeller design, dead angle treatment and machine seal design while also optimizing the external sanitation of the pump, meaning the internal sanitation is absolute.

The minimization of the dead angle allows for easy cleaning of the pump by CIP and sterilized by SIP.



Technical Specifications

Flow	10m ³ /h - 120m ³ /h
Head	70 H/M
Temperature	-20°C to 140°C
Power	0.3kw - 30kw
Material	304/316L
Mechanical Seal	Single mechanical seal, double mechanical seal
Inlet/Outlet Connection	Thread, Clamp, Flange, aseptic Flange



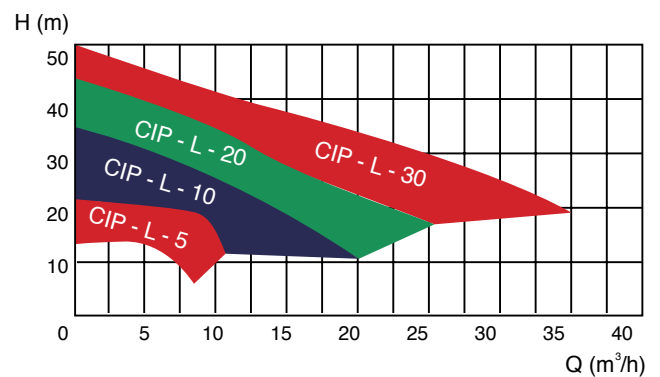
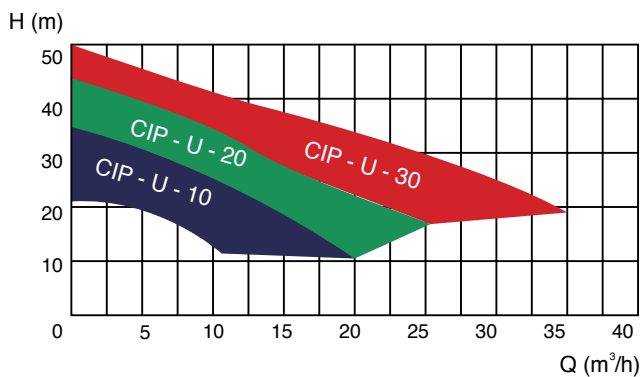
DJ-CIP Series Self-Priming Pump

The DJ - CIP Series Self-Priming pump is a suitable solution for high efficiency, low noise, large suction, easy maintenance, hygienic.



These pumps are a suitable solution for high efficiency, low noise and large suction requirements. Disassembly and reassembly of the pump are simple and require no professional staff or tools meaning maintenance on these are pumps is easily done. Single or double machine seals can be used depending on application and allows the integrity of the pump to remain no matter the application.

The pump is able to be cleaned by CIP and sterilized by SIP meaning it can remain hygienic at all times.



Technical Specifications

Max Flow	50m/h
Max Head	180 H/M
Temperature	-10 ^o C to 140 ^o C
Material	304/316L
Mechanical Seal	Single Mechanical seal, double mechanical seal
Inlet/Outlet Connection	Thread, Clamp, Flange, Aseptic Flange

Autoclaves Retorts

LAGARDE, is a famous retorts manufacturer based in France. They have become an international leader within the food and pharmaceutical industries via their innovations of reliable, safe and durable technologies. LAGARDE's grandest innovation being, Steam and Air processing. These processing technologies reduce process time by 50% along with some tangible energy consumption reductions, resulting in Cheaper, Faster and Better Quality products.

Process Equipment is a LAGARDE Autoclaves® Southern African representative. As a representative, PTE assists clients as needed for LAGARDE Autoclaves, providing installations along with the correct support, training and further maintenance. STEAM/AIR. Designed, produced in FRANCE

Specialized in horizontal retort manufacturing, LAGARDE Autoclaves®, part of the SCHOLZ group, is among the world leaders in batch thermal processing and the inventor of the Steam & Air process, Patent N° FR 2225702 published in 1974 which ensures a considerable reduction in energy consumption (steam, water, electricity) resulting in a very low unit cost of production (warranted by calculation and experience) compared with sterilisation process such as Full Water Immersion.



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STATIC RETORT



GREEN ONE - LAGARDE®
SERIES



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PHARMACEUTICAL AUTO-
CLAVE



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PILOT



ONE ALL - LAGARDE®
STATIC RETORT



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ROCKING SYSTEM®



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ROTARY RETORT



FIRST ONE - STATIC RETORT

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ENVIRONMENTAL FOOTPRINT**




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