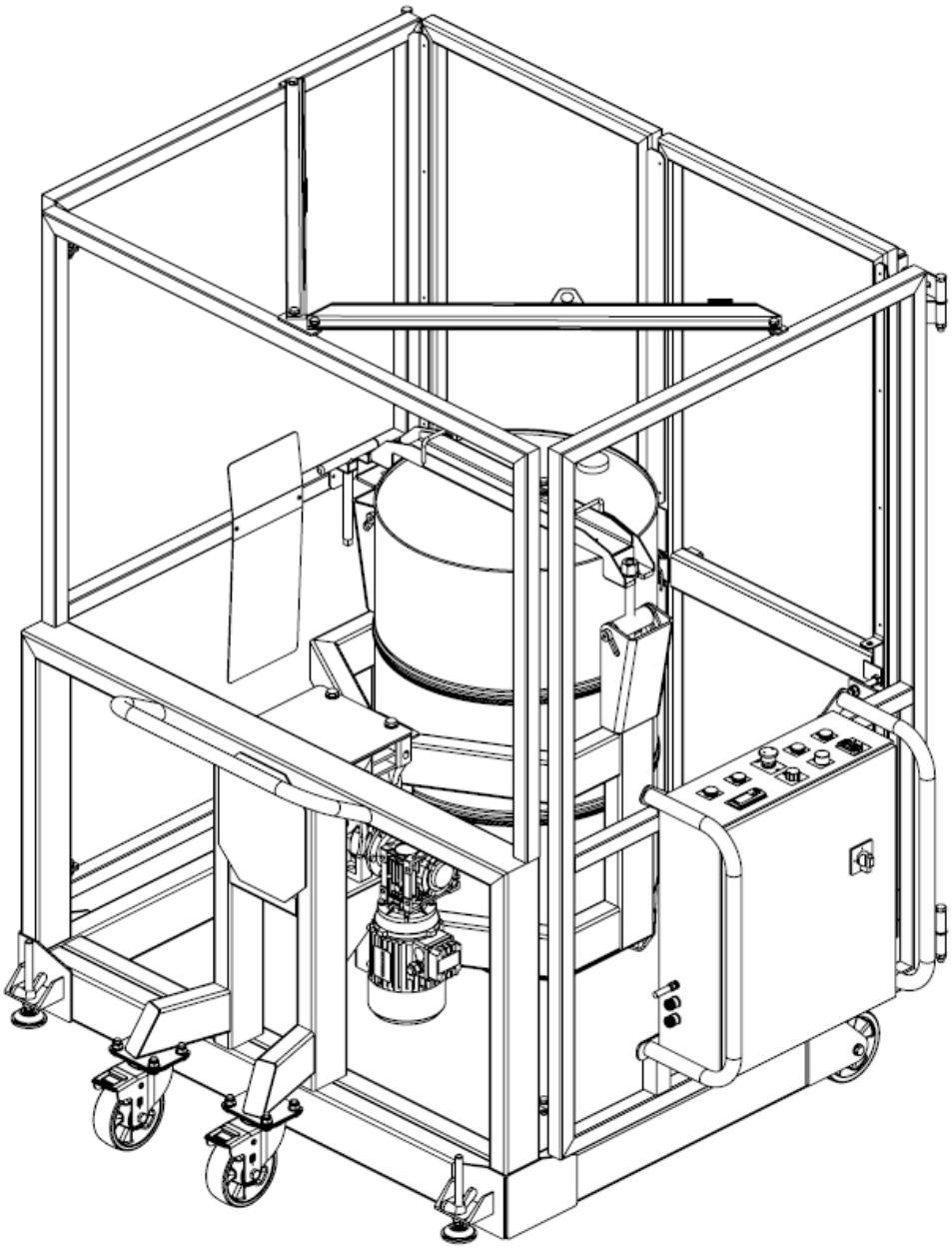
Operating Instructions.



DME01-230V

Electric Drum Mixer

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1 SECTION I – CORRECT USE AND APPLICATION

General

The unit described in the present operating instructions is designed for mixing load units. It must be used, operated and serviced in accordance with the present instructions. Any other type of use is beyond the scope of application and can result in damage to personnel, the unit or property.

Correct Application

NOTE:
The maximum load must not be exceeded.
The load must be mixed by the attachment provided by the manufacturer.
Correct applications of this unit are as follows:

- Mixing of loads
- Do not travel with the unit loaded
- Do not carry or lift passengers
- Do not negotiate on inclines

Approved Application Conditions

- Operation in industrial and commercial environments
- Permissible temperature range 5°C to 40°C
- Operation only on secure, level surfaces with sufficient capacity
- Operation only on routes that are visible and approved by the proprietor

Proprietor Responsibilities

For the purposes of the present operating instructions the "proprietor" is defined as any natural or legal person who either uses the unit himself, or on whose behalf it is used. In special cases (e.g. leasing or renting) the proprietor is considered the person who, in accordance with existing contractual agreements between the owner and user of the unit, is charged with operational duties. The proprietor must ensure that the unit is used only for the purpose for which it is intended and that there is no danger to life and limb of the user and third parties. Furthermore, accident prevention regulations, safety regulations and operating, servicing and repair guidelines must be followed. The proprietor must ensure that all users have read and understood these operating instructions.

NOTE:
Failure to comply with the operating instructions shall invalidate the warranty. The same applies if improper work is carried out on the unit by the customer or third parties without the permission of the manufacturer.

Adding Attachments and/or Accessories

The mounting or installation of additional equipment which affects or enhances the performance of the unit requires written permission of the manufacturer. Local authority approval may also need to be obtained. Local authority approval does not however constitute the manufacturer's approval.

Safety Regulations for the Operation of the Unit

Operator authorisation
The unit may only be used by suitably trained personnel, who have demonstrated to the proprietor, or his representative that they can drive and handle the loads and have been authorised to operate the unit by the proprietor or his representative.

Operator's rights, obligations and responsibilities
The operator must be informed of his duties and responsibilities and be instructed in the operation of the unit and shall be familiar with the operating instructions. The operator shall be afforded all due rights. Safety shoes must be worn for pedestrian units.

Unauthorised use of unit
The operator is responsible for the unit during the time it is in use. The operator must prevent unauthorised persons from driving or operating the unit. Do not carry passengers or lift other people.

Damage and faults
The supervisor must be immediately informed of any damage or faults to the unit or attachment. Units which are unsafe for operation (e.g. wheel or brake problems) must not be used until they have been rectified.

Repairs
The operator must not carry out any repairs or alterations to the unit without the necessary training and authorisation to do so. The operator must never disable or adjust safety mechanisms or switches.

Hazardous area
WARNING! Risk of accidents / injury in the hazardous area of the unit.
The hazardous area is defined as the area in which a person is at risk due to unit movement, mixing operations, the handler (e.g. forks or attachments) or the load itself. This also includes areas which can be reached by falling loads or lowering operating equipment.

- Instruct unauthorised people to leave the hazardous area
- Give a warning signal with plenty of time for people to leave
- If unauthorised personnel are still within the hazardous area stop the unit immediately

Safety devices and warning labels
Safety devices, warning signs and warning instructions in the present operating instructions must be strictly observed.

Travel routes and work areas
Only use lanes and routes specifically designated for unit traffic. Unauthorised third parties must stay away from work areas. Loads must only be stored in places specifically designated for this purpose. The unit must only be operated in work areas with sufficient lighting to avoid danger to personnel and materials. Additional equipment is necessary to operate the unit in areas of insufficient lighting.

DANGER!
Do not exceed the permissible surface and spot load limits on the travel routes. At blind spots get a second person to assist.

Travel conduct
The operator must adapt the travel speed to local conditions. The unit must be driven at slow speed when negotiating bends or narrow passageways, when passing through swing doors and at blind spots. Abrupt stopping (except in emergencies), rapid U turns and overtaking at dangerous or blind spots are not permitted. Do not lean out or reach beyond the working and operating area.

Travel visibility
The operator must look in the direction of travel and must always have a clear view of the route ahead. Loads that affect visibility must have a second person walk alongside the unit as a lookout to observe the travel route while maintaining eye contact with the operator. Proceed only at walking pace and with particular care.

Negotiating lifts and docks
Lifts may only be entered if they have sufficient capacity, are suitable for driving on and authorised for unit traffic by the owner. The operator must satisfy himself of the above before entering these areas. The unit must enter lifts with the load in front and must take up a position which does not allow it to come into contact with the walls of the lift shaft. People travelling in the lift with the unit must only enter the lift after the unit has come to a halt and must exit the lift before the unit. The operator must ensure that the loading ramp/bridge cannot move or come loosed during loading/unloading.

Type of loads to be mixed
The operator must make sure that the Drum is in a satisfactory condition. Drums must always be positioned safely and carefully and secured fully using the top clamp bar. Use suitable precautions to prevent liquids from spilling.

Mixer Checks
The checks and operations to be performed before starting daily operation are stated under the 'unit operation' section in the main context of this manual.

WARNING!
Damage and other mixer defects can result in accidents.
If damage or other mixer defects are discovered during checks, the mixer must be taken out of service until it has been repaired.
- Report any defects immediately to your supervisor
- Tag out and decommission a faulty mixer
- Only return the mixer to service when you have identified and rectified the fault

WARNING!
Unsecured and incorrectly positioned loads can cause accidents
Before mixing a load unit the operator must make sure that it has been correctly positioned and does not exceed the unit's capacity.
- Instruct other people to move out of hazardous area of the unit. Stop working with the unit if people do not leave the hazardous area
- Only carry loads that have been correctly secured and positioned. Used suitable precautions to prevent parts of the load from tipping or falling down
- Damaged loads must not be mixed
- Never exceed the maximum load capacity of the unit
- Never stand underneath a raised load handler
- Do not stand on the unit
- Do not lift other people on the unit

Hazardous area
Warning! Risk of accidents / injury in the hazardous area of the mixer.
The hazardous area is defined as the area in which a person is at risk due to mixer movement, rotating operations or the load itself
- Instruct unauthorised people to leave the hazardous area
- Give a warning signal with plenty of time for people to leave
- If unauthorised personnel are still within the hazardous area stop the mixer immediately

WARNING!
Risk of accidents and damage to components
All modifications to the unit, in particular safety mechanisms, are prohibited. The operating speeds of the unit must not be increased under any circumstances.

NOTE: Only original spare parts have been certified by the manufacturer. To ensure safe and reliable operation of the unit, use only the manufacturer's spare parts.

Maintenance Safety Regulations

The checks and servicing operations contained in this chapter must be performed in accordance with the intervals as indicated in the servicing checklists.

Maintenance Personnel
The unit should only be serviced and repaired by a competent individual as selected by the company the equipment is intended for use with.

Cleaning
CAUTION!
Fire Hazard
Do not use flammable liquids to clean the mixer.

CAUTION!
Risk of component damage when cleaning the mixer
Do not clean with pressurised water.

Consumables and used parts
CAUTION!
Consumables and used parts are an environmental hazard
Used parts, oils and fuels must be disposed of in accordance with the relevant environmental protection regulations.
Note the safety regulations when handling these materials

Hydraulic hoses (if applicable)
WARNING!
Brittle hydraulic hose lines cause accidents. Hairline cracks in the hydraulic lines can cause injury and infection. The hydraulic hoses installed in the unit are supplied in accordance with BS EN 857:2015. The hydraulic hoses should only be serviced or replaced by a competent individual as selected by the company the equipment is intended for use with. The proprietor shall maintain the hydraulic hoses in accordance with BS 5244:1986.

Servicing and Inspection

Thorough and expert servicing is one of the most important requirements for the safe operation of the unit. Failure to perform regular servicing can lead to unit failure and poses a potential hazard to personnel and equipment.

WARNING!
The application conditions of a unit have considerable impact on the wear of the service components.

Lifting the Unit

WARNING!
Improper lifting by crane can result in serious accidents
The use of unsuitable lifting gear can cause the unit to crash when being lifted by crane. Prevent the unit from striking other objects when it is being raised, and avoid any involuntary movements. If necessary secure the unit with guide ropes. The strap point on the mast is for loading the unit with lifting gear.

- The unit should only be handled by people who are trained in using lifting slings and tools
- Do not walk into or stand in a hazardous area
- Always use lifting gear with sufficient capacity
- Always attach the slings to the prescribed strap points and prevent them from slipping

WARNING!
Accidental movement during transport
Improper fastening of the mixer during transport can result in serious accidents.

- Loading must be carried out by special trained staff in accordance with recommendations contained in Guidelines BS EN 12640:2001. In each case correct measurements must be made and appropriate safety measures adopted
- The unit must be securely fastened when transported on a lorry or trailer
- The lorry/trailer must have fastening rings
- Use wedges to prevent the unit from moving
- Use only tension belts or tie-down straps or with sufficient strength

Lifting the Unit

Requirements

- Park the unit securely

Tools and Material Required

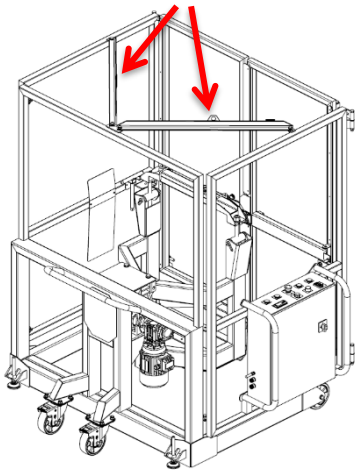
- Lifting gear

Procedure

- Secure Lifting slings to the lifting points shown

The unit can now be lifted.

Lifting Points



2 SECTION II – UNIT DESCRIPTION

2.1 APPLICATION

The DME01-230V is a four-wheeled Electric Drum Mixer designed for use on flat ground. The DME01-230V is a stationary unit with an electric rotating function designed for rotating drums of between 200-220L. The drums must have maximum diameter of 600mm and be between 840-1010mm in height. The intended purpose of this unit is to be able to accept, secure, rotate and mix drums end over end at various speeds which can be adjusted to suit the application.

The Small Drum Adaptor is an optional extra available with this product. The Small Drum Adaptor fits inside the mixer head and allows drum of up to 500mm in diameter and between 100-900mm in height to be mixed.

An emergency stop button has been incorporated which will rapidly cut out all the electrical functions when pressed. If the gate is opened whilst the unit is operating then the mixer will stop operating to ensure the safety of the operator and other personnel.

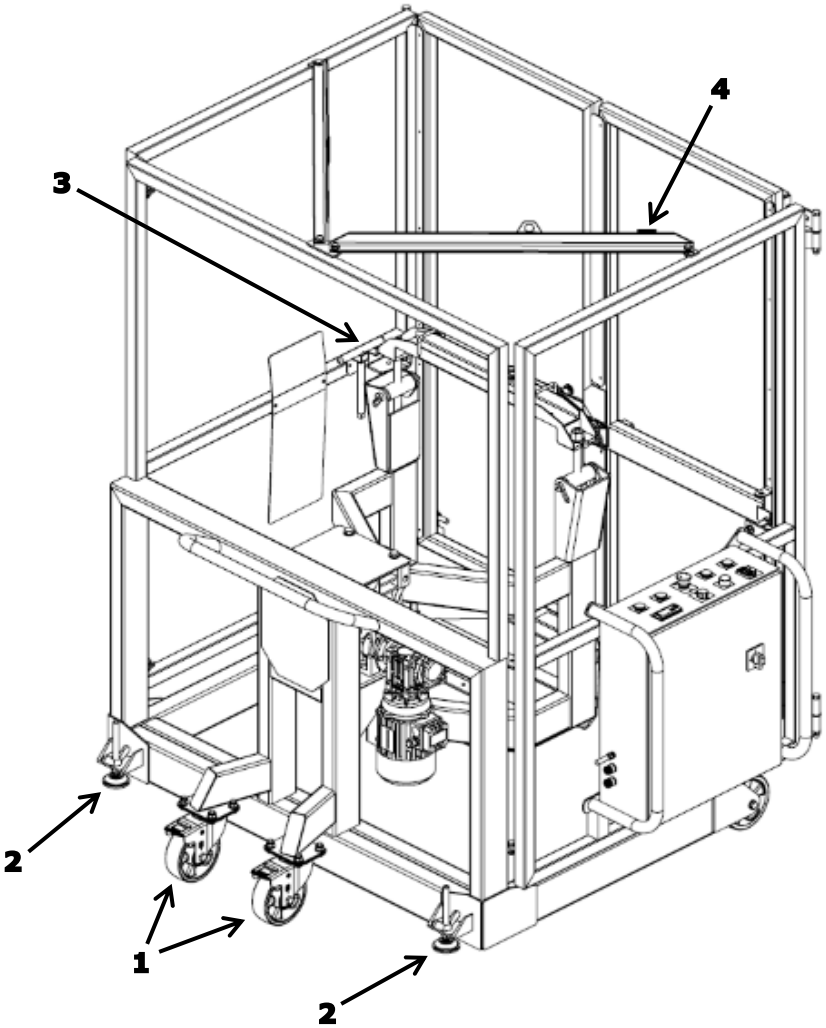
The unit has been designed with smooth geometry including rounded edges. The rotating head of the unit is fully enclosed in guarding which is compliant with BS EN 13857:2008 to ensure safe handling of the mixer. Ergonomic controls ensure fatigue-free operation. The digital timer displays the remaining mixing time or the time remaining until mixing commences, both of which can be set by the operator.

The Safe Working Load (SWL) of this unit is 350kg

3 SECTION III – UNIT OPERATION

3.1 POSITIONING THE MIXER

- Ensure lifting strops are removed after transport and before putting the unit into operation.
- Position the mixing unit in a position close to a mains power point and ensure that the gate can be opened fully for drum loading.
- Lock the two rear park brakes **(1)** to ensure the unit does not move during the mixing process.
- The unit is fitted with two rear jacking screw feet **(2)**. These should be screwed down so that the rear castors are slightly off the floor. The lock nut can then be tightened to lock the screw in place. The jacking feet help to stop the mixer vibrating during use.
- Plug the mains lead into a suitable power supply. Ensure that the cable is positioned away from any areas that would cause the cable to be a trip hazard.



3.2 Positioning the Mixer

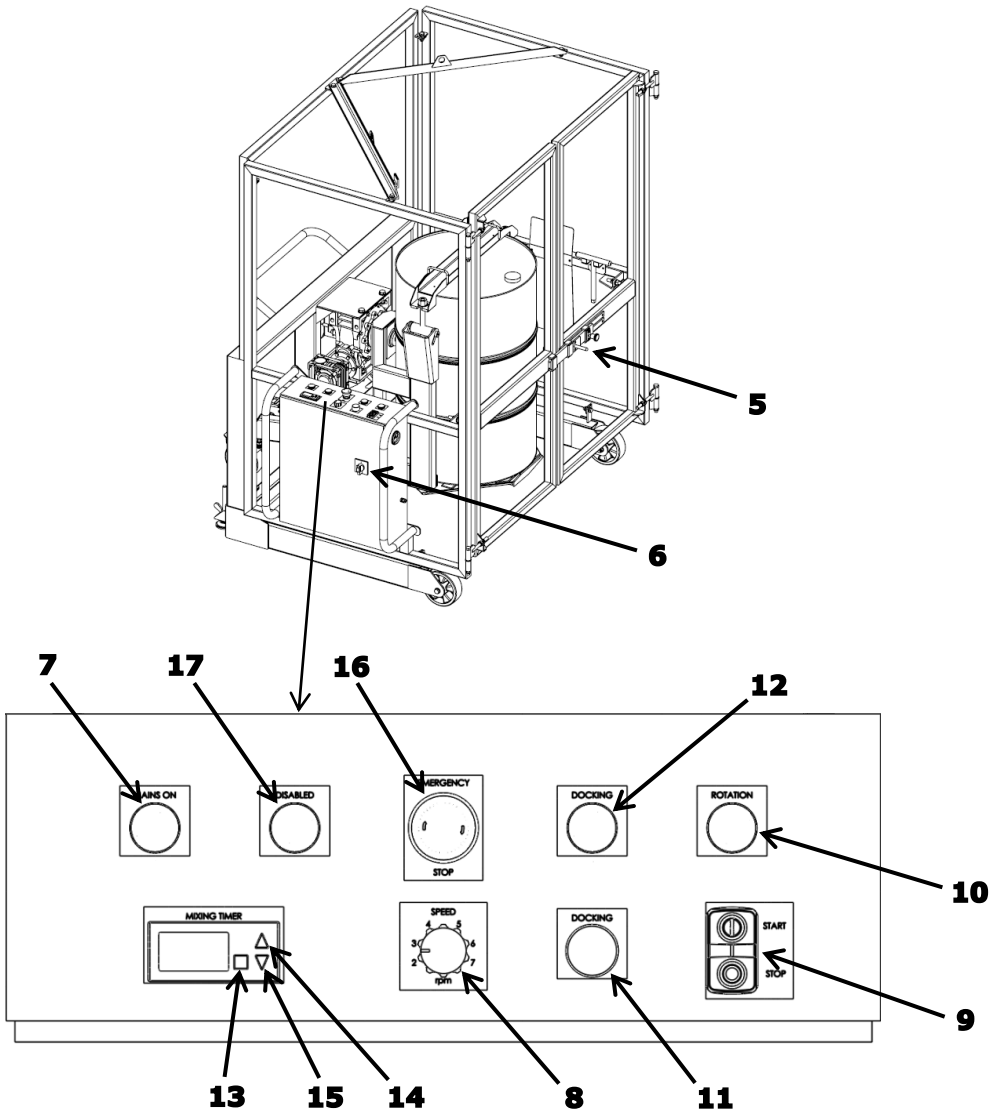
Before operating the drum mixer:

- Check the whole of the mixer for signs of damage.
- Check that the markings and labels are present, clean and legible.
- Check the gearbox shaft and top clamp bar screw threads for wear and damage.

3.3 Loading the Drum

- Unscrew the two screw clamps using the t-handle tool provided and remove the top clamp bar. The t-handle tool is stored in a bracket secured to the inside of the mesh guarding **(3)**. The top clamp bar can be hooked onto the storage hook on the left-hand side of the guard rail **(4)**.
- The drum can then be loaded onto the mixer base plate using any drum handling unit that will fit within the confines of the drum mixer. (An STS DTP04 depalletiser is compatible with the drum mixer)
- The top clamp bar is then lifted and placed centrally on top of the drum.
- The two screw clamps are then lifted up so that they slot into recess in the top clamp bar.
- Ensure that the clamp screws are vertical and the top clamp plate is centralised on the drum.
- The clamp screws should then be tightened to secure the drum using the t-handle tool provided. Ensure that the screw clamps are tightened evenly so the top clamp bar remains level on the drum and the pins move to the top of the slots on each of the vertical supports.
  Warning - Ensure that the T-handle tool is removed from the clamping assembly and store in the bracket on the mesh guarding before mixing.
- Close the gate at the front of the unit. Pull the black latching lock with your right hand and slide the stainless-steel bolt **(5)** across to lock the gates together. Let go of the latching lock to lock the bolt in position.
- Turn the power switch on **(6)**. The power on light **(7)** should be illuminated.
- Turn the rotation speed control **(8)** to the desired rotation speed. The speed can be adjusted between 2-7 rpm.
- Press the green start button on the start/stop controls **(9)** on the main panel to start the mixing cycle, the rotation light **(10)** will illuminate during operation. The timer is initially set for 30 minutes if you wish to adjust the mix time follow the instructions for setting the operation timer.
- The timer will count down until the set time has elapsed. Alternatively, you can press the red stop button on the start/stop controls **(9)**.
- The drum will stop in any position so you will need to press the green docking button **(11)** to allow the drum to rotate into the vertical. The docking light **(12)** will illuminate during this process.
- The drum needs to be in the vertical position for unloading and loading.
- The gate can now be opened and the drum removed in reverse order of the drum loading procedure.

3.4 Setting the Operation Timer



- Press the set button **(13)** once. The display will start flashing. Use the up **(14)** and down **(15)** arrows to set the desired mixing time in hours and minutes.
- Press the set button **(13)** to confirm the mixing time. The mixing time figures should now stop flashing.

3.5 Safety Features

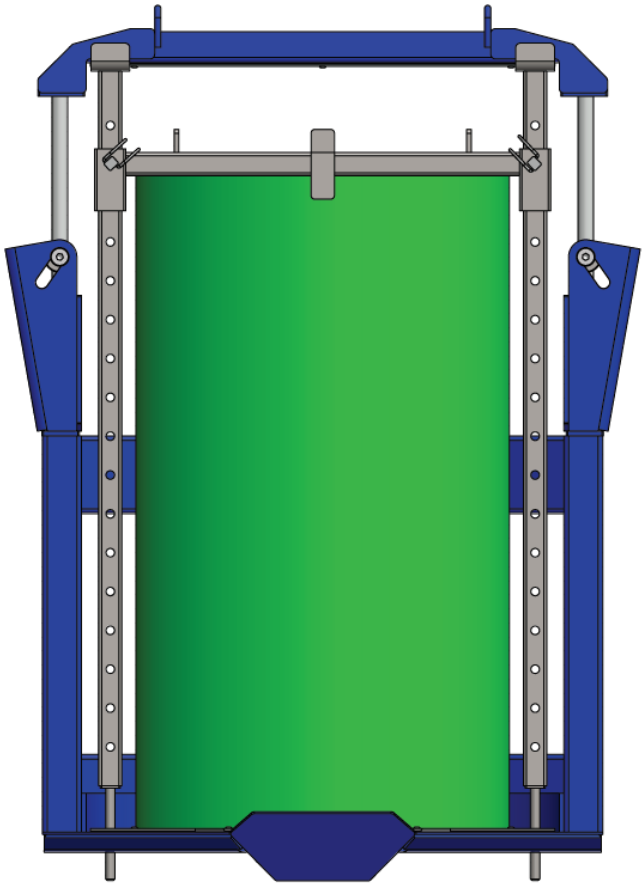
- There is an emergency stop button **(16)** on top of the panel. If this is pressed the rotation will stop and the disabled light **(17)** will illuminate. Rotate clockwise to reset.
- If the gate is opened whilst the unit is operating the unit will stop. The disabled light **(17)** will illuminate.

3.6 Small Drum Adaptor (Optional Extra)

- The small drum adaptor fits underneath the top clamp bar and has a two-position clamping brace. Depending on the diameter of drum to be mixed, the clamping

brace can be removed from the small drum adaptor assembly and rotated 180 degrees.

- The height of the small drum adaptor clamp bar can be adjusted by removing the two over centre clamping pins and selecting the desired holes. The appropriate hole should allow the pins on the vertical bars to protrude through the holes in the base plate of the mixer whilst the clamping brace is sat flush on top of the drum, as shown below.



- The same procedure as previously mentioned can then be used to clamp the small drum adaptor on top of the drum. Ensure that the drum cannot move around before mixing.

3.7 Trouble Shooting

When trying to locate a fault, proceed in the order shown in the table.

NOTE:

Troubleshooting must only be performed by competent personnel. If after carrying out the following remedial action the unit cannot be restored to operation, contact the manufacturer's technical helpline listed at the end of this manual.

In order for STS to be able to react quickly and specifically to the fault, the follow information is essential:

- Mixer serial number
- Description of error
- Mixer product name
- Current location / Company

Mixer does not move

Possible Cause	**Action**
Rear jacking screw feet engaged	Disengage rear jacking screw feet
Rear brakes engaged	Disengage rear brakes

Mixer does not rotate

Possible Cause	**Action**
Emergency stop engaged	Ensure emergency stop is in the correct position
Doors are not fully closed	Close the doors and secure the latch
Unit is not switched on	Turn the Isolator Switch to the on position

4 SECTION IV – UNIT MAINTENANCE

The following servicing checklist indicates the operations to be performed and the respective intervals to be observed. Maintenance intervals are defined as:

W = Every 50 service hours, at least weekly

A = Every 1000 service hours, at least annually

● = Standard maintenance interval

4.1 MAINTENANCE CHECKLIST

Brakes		**W**	**A**
1	Test brakes	●	●

Travel		**W**	**A**
1	Check wheels for wear and damage	●	●

Chassis and Superstructure		**W**	**A**
1	Check labels are legible and complete	●	●
2	Check chassis and screw connections for damage		●

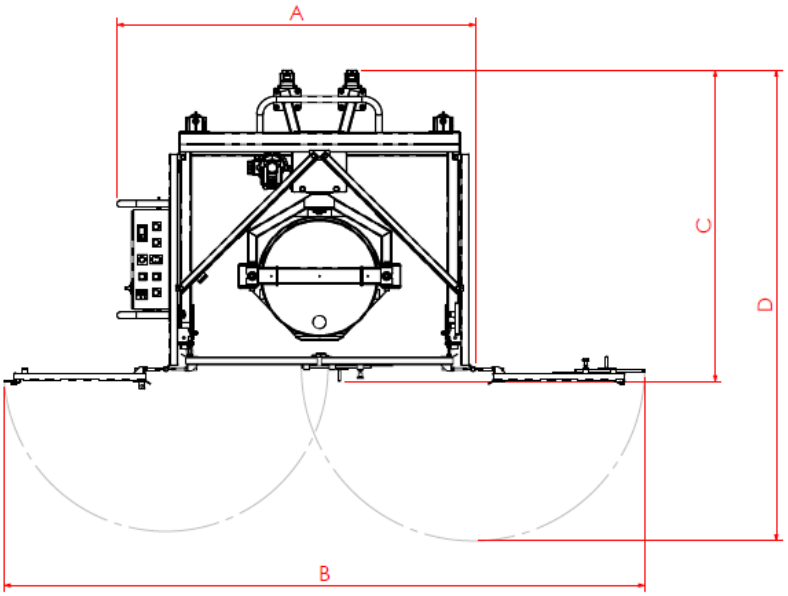
Rotation		**W**	**A**
1	Check gearbox for wear and damage	●	●

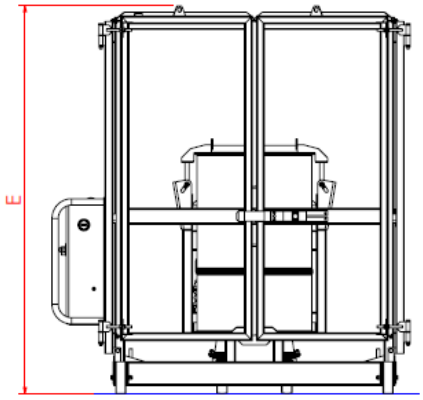
Agreed Performance Level		**W**	**A**
1	Carry out a test run with rated load, if necessary with customer specified load		●

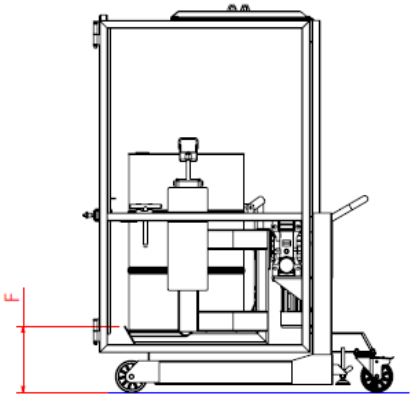
4.2 CONSUMABLES

No consumables are required during the lifetime of this unit

5 SECTION V – TECHNICAL SPECIFICATION







Designation	Description	Dimension (mm)
A	UNIT WIDTH	1800
B	MAX UNIT WIDTH	3250
C	UNIT LENGTH	1600
D	MAX UNIT LENGTH	2360
E	UNIT HEIGHT	1950
F	LOADING CLEARANCE HEIGHT	350

SWL. *350kg*

Net Mass. *367kg +/-5kg*

System Voltage. 230V

Nominal Power. *550W*

Max Noise Level. *79dbA*

Drum Range. *200-220L Drums (Max diameter - 600mm), (Max Height 840-1010mm)*

6 SECTION VII – DECOMMISSIONING THE MIXER

If the mixer is to be out of service for more than a month, e.g. for commercial reasons, it must be stored in a frost-free and dry room. All necessary measures must be taken before, during and after decommissioning as described hereafter.

Prior to decommissioning

- Thoroughly clean the mixer
- Test the brakes
- Check for wear and damage on the chassis and any components

6.1 Final De-commissioning, Disposal

Final de-commissioning or disposal of the mixer must be performed in accordance with the regulations of the country of use. In particular, regulations governing the disposal of batteries, fuels and electronic and electrical systems must be observed.

The mixer must only be disassembled by trained personnel.

6.2 Safety Tests to be performed at Intervals and after Unusual Incidents

Perform a safety check in accordance with national regulations.

The mixer must be inspected at least annually or after any unusual event by a qualified inspector. The inspector shall assess the condition of the mixer from purely a safety viewpoint, without regard to operational or economic circumstances.

For further help contact the Bespoke Handling Equipment:

Technical Support Line: 44 (0) 1736 851050

In the interest of all concerned it is essential that equipment of our manufacture is used only for the purposes for which it has been designed and it must be used in accordance with the instructions which are supplied.