ARTOFEX
Triple Action Mixer

GENTLE "OLD TIME" HAND MIXING IN A MODERN, AUTOMATIC, MIXER:

MIX DOUGHS WITH IMPROVED FLAVOR AND TEXTURE
The Unique ARTOFEX mixing arm motion gently mixes, kneads, stretches, lifts and folds dough for highest possible gluten development ... maximum water absorption ... excellent aeration ... gives baked goods improved flavor with excellent texture.

NO HEAT ... NO NEED FOR REFRIGERATION
Unlike high speed mixers, the gentle ARTOFEX mixes without any temperature increase. No need for cooling jackets or other methods of refrigeration.

UNIFORM MIXING EVEN FOR SMALL BATCHES
The ARTOFEX mixes perfectly at full or fractional capacity thus eliminating the need for separate machines for various batch sizes.

EASILY REMOVABLE STAINLESS BOWLS FOR INCREASED PRODUCTION

U.S.D.A. APPROVED MACHINE

excelsior
industrial equipment co.

611 Industrial Ave. • Paramus, N.J. 07652 • (201) 967-8222 • Telex #135545 • Fax 201-967-8225

General Specifications

CONSTRUCTION:	Heavy cast frame
SAFETY FEATURES:	See through bowl shield on solid metal frame for operator protection to prevent coming in contact with moving arms. When shield is lifted, machine automatically shuts off due to limit switch wired into main NEMA type control.
SWITCHES:	START - STOP - JOG - RESET (TIMER OPTIONAL)
MOTOR:	One speed - totally enclosed, fan cooled - 3 phase/60 hz/208/230/460 Volt. Optional - 2 speed motor for special purpose mixing.
MIXING ARMS:	STAINLESS STEEL - SEVERAL DIFFERENT TYPES
MIXING BOWL:	STAINLESS STEEL - REMOVABLE
BOWL DRIVE SYSTEM:	Manual operated or Pneumatic operated (by compressed air)
FINISH:	White Enamel or Kanigen electroless nickel plated U.S.D.A. APPROVED

MIX SALADS AND FRUITS WITHOUT BREAKAGE
Gentle 3-way agitation insures thorough mixing without damage to salad ingredients ... without breakage of fruits without grinding of spices or nuts. One single Artofex can mix just about everything. Various-consistency doughs for all baked goods ... salads ... meats ... fruit cakes ... vegetable mixes ... drugs and chemicals.

VISIBILITY OF MIX TO CONTROL DOUGH DEVELOPMENT
Bakers can view dough at all times to produce perfect-consistency doughs for any desired type of bread, rolls, sweetgoods, biscuits, pies, pastries, etc.

SPECIFICATIONS—COMPLETE MACHINE **SPECIFICATIONS—BOWL AND TRUCK**

No.	Rated Size Barrels	Mixing Capacity in Lbs.	Space Occupied Inches Wide	Space Occupied Inches Deep	H.P. Required	Net Weight Lbs.	Shipping Weight Lbs.	Inside Diameter of Bowl Inches	Depth of Bowl Inside Inches	Distance Floor to Top of Bowl	Net Wt. Lbs.	Shipping Wt. Lbs.
PH-0	Laboratory	5 lbs.	24	19	½	148	225	12½	6	9½	10	20
PH-8	½	185 lbs.	29	45	1½	1190	1582	26¾	17	26½	183	352
PH-15	1	330 lbs.	32½	48	3	1488	1970	30¾	18½	30¼	235	430
PH-20	1½	470 lbs.	38½	54	5	1940	2250	37	20	32¼	319	562
PH-30	2	700 lbs.	43	61	7½	2645	3492	43¼	23	33½	423	720

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INSTRUCTIONS RE. ASSEMBLY, OPERATION AND MAINTENANCE OF THE ARTOFEX MIXING AND KNEADING MACHINE TYPE PH-8/30, NAM

V-BELT DRIVE

A) TRANSPORT. During the transportation and unloading, please see to it that the machine be moved with the bowl in front (danger of tipping, as the point of balance is in the upper part). If possible, leave the machine on the wooden base on bringing same to the location of installation.

B) ASSEMBLY. The floor underneath and in front of the machine must be completely even. The machine must be put on the level and fixed to the floor with foundation bolts.

C) REMOVAL OF THE BOWL.

1. Raise the arms into highest position by turning the hand wheels behind the V-belt enclosure.
2. Loosen mixing arms screw, raise mixing arm on the right by means of hand wheel and fix in the uppermost position.
3. Kneading arm must always be raised and fixed in the uppermost position. The automatic locking device effects that primarily always, the mixing arm must be moved to the right upwards and the kneading arm downwards to the left, which prohibits the collision of the arms.
4. Application of the worm to the right into the bowl gear must be disengaged by pressing the foot pedal to the rear.
5. Loosen the T-screw on the right under the bowl, and if possible, move same to the right.
6. Remove bowl to the front with vigorous push.

D) INSERTION OF THE BOWL.

1. Put arms in the highest position.
2. Raise mixing arm on the right and the kneading arm on the left and fix both in the uppermost position.
3. Foot disengagement pedal must be pressed to the rear and the T-screw must be moved to the right.
4. Push in the bowl exactly from the front into the machine in a vigorous manner and fix same satisfactorily with the T-Screw.

E) PUTTING INTO OPERATION.

1. Check whether driving motor has been lubricated and whether all lubrication points have been serviced, as per Section G/1.

2. Engage worm by pressing down of the foot control (disengagement pedal) into the bowl gear.

3. Loosen thumb screw on the kneading arm casting to the left. Lower arm gently and fix same satisfactorily with the screw.

4. Loosen thumb screw on the right of the mixing arm casting. Lower arm gently and fix same satisfactorily with the screw.

5. Check whether the bowl hooks behind the hand wheels engage into the corresponding arm pinions.

6. Start machine by switching on motor.

F) TO CEASE OPERATION.

1. Switch off motor.

2. Wheel out bowl as described under "C".

G) LUBRICATION AND MAINTENANCE.

The following lubrication points exist:

12 lubrication bushes or lubrication nipples (1 each behind the stand gauge inside the casting, 1 on the rear of the arm casting, 1 on the front and one on the rear of the bowl drive and one beneath the bowl gear), 8 Oil holes, (3 on the bowl drive, one on each trolley wheel, one each on the bowl fixing pedal and lever).

1. Servicing of the lubrication points, as per lubrication plan. (the lubrication points must be serviced, at least, once per day in case of use of several hours twice daily, one half turn of the lubrication bushes each. The gear wheels must be oiled once per month. (Mobil type Dorcia "4".

2. CLEANING, the machine should be cleaned daily in its stationary position (dry).

The Kneading Arm must be neither oiled nor greased.
Before each raising they must be cleaned by hand with a cleaning rag at least up to the arm casting.

The grooves of the arms must be also kept clean.

H) INSTRUCTIONS. The V-Belts must not be too tight. These V-belts can be either tightened or loosened by adjustment of the motor platform. If a whistling noise can be heard, the V-belts are too loose and must be tightened. The V-belts must be protected against dirt from fat matters. In the arm casting on the right a quadrant is located underneath which is a thumb screw which applies the pressure of the quadrant to the mixing arm. Should this quadrant fall down when the mixing arm is being removed, it must be inserted from beneath into the opening provided inside the arm casting, in such a manner that the round finished part intrudes into the tube of the helix.

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EXCELENGIN
FAIRVIEW BERGEN CO.

ARTOFEX

QUALITY PROCESSING MACHINERY

INSTRUCTIONS

for Unloading, Installing, Dismantling and Re-erecting of all

ARTOFEX MIXERS

UNLOADING. – When unloading the machine, bear in mind that the machine is TOP HEAVY at the end where the case is built-up. If no crane facilities are available, and the machine has to be lowered from a truck to the ground, use skids, supported under the centre by a "horse" (empty case or box) to prevent sagging. Bring down the lower end of the case first, leaving the built-up or heavier end in the rear. The case should be held back with a strong rope sliding it down slowly.

UNPACKING THE MACHINE. – Take off the top and sides of the case, leaving the machine on the strong wooden base. Then remove the Bowl from the machine by adopting the following procedure:-
Bring the two Arms into their highest position by turning the driving pulley by hand; raise the forked right-hand Mixing Arm to its **fullest height** by means of the handwheel and lock it with the thumb screw. Then raise left-hand Kneading Arm and lock this with the thumb screw. Following this, trip Foot Clutch to throw the bowl drive worm out of gear, unscrew the large "T" -screw underneath the bowl and swing this lever to the right as far as possible. The bowl can then be easily wheeled out.

FIXING THE MACHINE. – Should the door to the place where the mixer is to be installed be wide enough to let through the packing base of the machine, move the machine on rollers to its site while it is still on its base. If this is not possible remove the machine from its base and work it carefully to the place where it is to be installed. In case the machine should be too bulky to go in whole then it should be dismantled as explained under heading "Dismantling Machine."

To get the machine from its packing base, shore up the base far enough from the floor to allow for easy removal of the four bolts which hold the machine to the base. Then gradually remove the shoring away until the base is again on the ground. The machine can then be taken from the packing base without difficulty.

ALWAYS TAKE CARE NOT TO OVERLIFT THE BOWL END AS YOU MIGHT OVER-BALANCE THE HEAVY GEAR CASE TO THE REAR OR SIDE. WATCH OUT, THE MACHINE IS TOP-HEAVY!

Once the machine is in its desired position fix it to the floor with four bolts. Bolting down is done to prevent the machine from moving out of position when the bowl is wheeled in and out.

The machine should of course stand level. To check this place a spirit level across both directions of the slides on which the Trolley moves in and out, and as a further check, the gear case lid should be raised and the spirit level placed across in both directions on the machined portion of the gear case.

The floor in front of the machine should always be quite level to facilitate the interchanging of the bowl.

When mounting motor on platform of machine make sure that the V-grooved motor pulley is in correct alignment with the V-grooved driving pulley on the machine. This is very important. Incorrect alignment causes wear to take place on the V-belts and maximum efficiency is not obtained. Do not set up the V-belts too tight or too slack. The motor platform is adjustable and correct tension can therefore easily be obtained.

When the machine is in operation the arms should move from the sides to the centre of the bowl, which means that the motor should run counter-clockwise when looking at it from the REAR of the machine.

DISMANTLING THE MACHINE. – Where the machine cannot be moved into the desired installation place bodily it has to be dismantled either partly or completely. Dismantle only as absolutely necessary, proceeding as follows:-

Take off the small pulley or sprocket which drives the bowl by undoing the set screw with the cranked square-ended wrench supplied with the machine. Having done this, remove the large driving pulley. Then

Phone: 201 - 945-1815 (I

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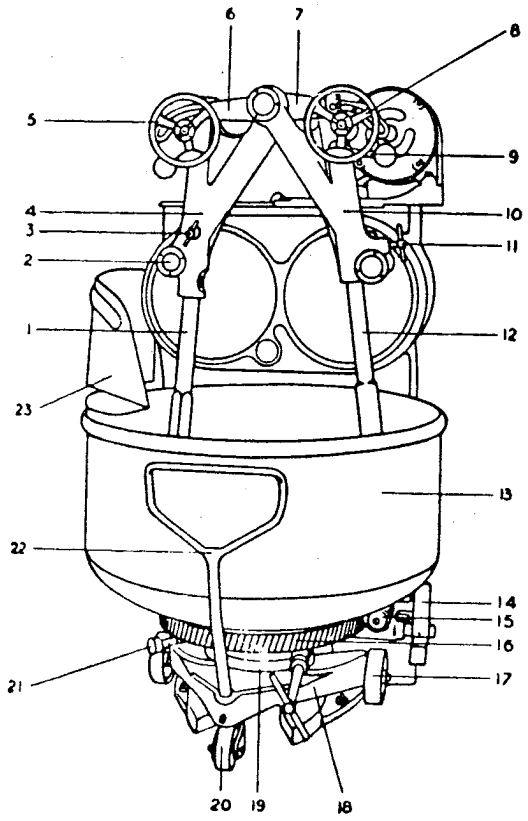
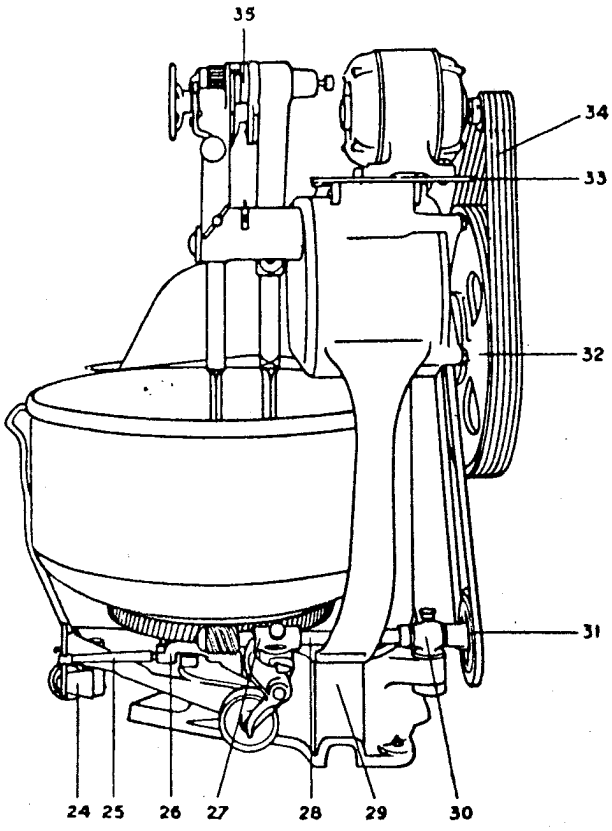
AREA CODE (201) 967-8222

SPARE PART CHART.

(Numbers refer to drawings.)





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2. Grease Cap with rubber ring and 3 screws. K. A. Spindle.
3. Thumb Screw for Kneading Arm.
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15. Worm for Bowl Drive.
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20. Front Caster for Bowl Truck (Roller only).
21. Alemite Fitting.
22. Guide Pole for Truck.
23. Side Guard.
24. Fork with Spindle for Front Caster.
25. "T"-Screw for Bowl Locking Lever.
26. Bowl Locking Lever.
27. Front Bearing for Bowl Drive Shaft.
28. Bowl Drive Shaft.
29. Base Casting.
30. Rear Bearing for Bowl Drive Shaft.
31. Bowl Drive Pulley or Sprocket.
32. Main Drive Sheave.
33. Motor Platform.
34. "V" Belts.
35. Ring for automatic locking device.

remove main shaft by undoing the set screw in main shaft bearing which is directly adjacent to the driving pulley. Insert two pieces of round iron into the two holes on the bearing and loosen same, withdrawing both the bearing and the main shaft.

Most probably the machine can now be taken to the desired installation place. When replacing the above-mentioned parts first take off the cap of the centre lubricator inside the gear case; the shaft fits into a dead-end bearing which would, unless this lubricator cap is removed, form an air pocket and the shaft might not be properly inserted. The shaft, with the thrust bearing thereon, should then be pushed into its position, you should then replace the main shaft bearing, making sure that recess in the bearing corresponds with set screw in support. Then tighten up set screw. Make sure that the shaft is pulled back as far as possible after bearing has been replaced, otherwise it will have too much play. Finally, refix pulley back on shaft and tighten up the set screw or the two bolts.

If the machine is still too bulky to get in, remove the two arm sockets with arms by taking off the three nickel-plated caps and unscrewing the three hexagon screws inside the caps. THE HEXAGON SCREW ON THE RIGHT-HAND SIDE FACING MACHINE (OR MIXING ARM) SOCKET HAS A **LEFT-HAND THREAD.** First, take off the right-hand socket complete with automatic locking device which consists of the two shears, ring, spacing sleeve located beneath this ring and four pins, holding the other socket so that it cannot fall; then take off the other. When replacing these sockets first clean the spindles and sleeves and put on fresh grease. Make sure that the flat surface of the shears of the automatic locking device face you, and see that this device is correctly timed. For this purpose there are punch marks at the rear of the sockets and the handwheel pinions. These punch marks must be in line with each other as otherwise the locking device will not work properly.

Further dismantling is done by removing THE TWO FRONT COVER PLATES and the two gear wheels with balance weights. To do this, unscrew the two set screws on each collar inside the gear case. This enables withdrawal of gear wheel supports. The two gear wheels can now be removed bodily from the rear, that is with balance weights and arm spindles, simply by gradually easing out. However, before removing the two gear wheels, make sure that they have clear PUNCH MARKS. This is very important as the gears must be brought back into position exactly in mesh as they were before removal, otherwise the arms will not work true and the machine might become damaged.

If necessary the gear can now be taken off the base casting of the machine. First however, the bowl drive shaft must be removed. To do this, remove the pulley or sprocket (if you have not done so already) and take off the collar underneath the rear pivot by unscrewing the two set screws; then loosen the set screw on clutch shaft in base casting in front. The clutch shaft with foot clutch can now be pulled outward until clear of the machine base and the complete bowl drive device (with the exception of the rear bearing) can be pulled forward. The gear case can now easily be removed from the base casting and the machine is then completely dismantled.

RE-ERECTING THE MACHINE. – Put the machine together by following the same succession as when dismantling, but starting with the LAST part taken off. Clean all the shafts before replacing them and put on fresh clean mineral grease of medium consistency. Clean also the gear wheels before putting them back into the gear case and pour some oil over them. SPECIAL CARE MUST BE TAKEN THAT THE GEARS ARE EXACTLY IN MESH AS THEY WERE BEFORE REMOVAL. It is also most essential that the set screws in the collars, as well as all others, fit exactly into the recesses provided for them in shafts, etc. Do not tighten up the set screws too tightly.

Once the machine is re-built it should be run by hand to make sure that it has been assembled correctly and that everything works easily and runs true.

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FACTORY REPRESENTATIVES FOR U. S. A.

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100 BROAD AVENUE, FAIRVIEW, N. J. 07022

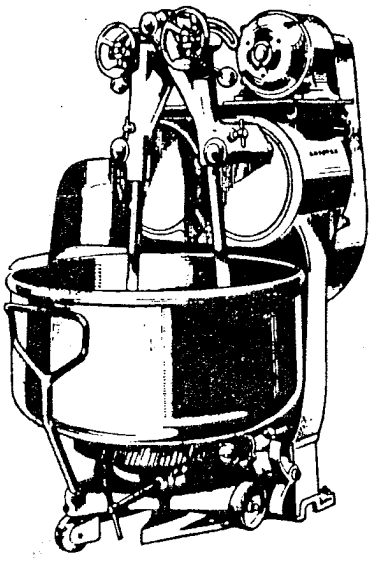
PROFESSIONAL ENGINEERS

Phone: 201 - 945-1815 (Bergen County)

MANUFACTURER'S REPRESENTATIVES

INSTRUCTIONS

for Operation and Upkeep of the Patented "ARTOFEX" Mixer P H



Important: ALL INSTRUCTIONS SHOULD BE CAREFULLY FOLLOWED.

While in transit the motor might get out of alignment. This, if not adjusted, would cause rapid wear on V-belts. It is therefore advisable to carefully check motor sheaves and main drive sheave alignment by means of straight edge.

Motor, starter, and limit switch have been correctly connected.

3 Phase:—Bring line to three poles in starter marked L-1, L-2, L-3, and see that the machine when line is connected to these three poles is running in the right direction as indicated by red arrows on front plate cover.

1 Phase:—Bring line to two poles in starter marked L-1, and L-3.

2 Phase—4 Wire—Bring line to four poles in starter marked L-1, L-2, L-3 and L-4, and see that the machine is running in the right direction.

TO START MACHINE: For Part Numbers See Reverse Side.

LOCK BOWL TIGHT by means of "T" screw (25)

TRIP FOOT CLUTCH (14) so as to bring bowl drive worm into gear.

LOWER LEFT-HAND KNEADING ARM (1) and tighten thumb-screw (3) finger tight. This arm is **ALWAYS** lowered FIRST.

LOWER RIGHT-HAND MIXING ARM (12) and tighten thumb-screw (11) finger tight. This arm is **ALWAYS** lowered LAST. (Make sure that the Hooks with Ball Weights (9) on the arm sockets have correctly engaged the lower pin on the arms proper.)

SWITCH ON MOTOR by pressing "START" button.

TO STOP MACHINE AND REMOVE BOWL:

SWITCH OFF motor by pressing "STOP" button and then bring arms into highest position by alternately pushing in quick succession "START" AND "STOP" buttons.

RAISE RIGHT-HAND MIXING ARM (12) and tighten thumb-screw (11) finger tight. This arm is **ALWAYS** raised FIRST.

RAISE LEFT-HAND KNEADING ARM (1) and tighten thumb-screw (3) finger tight. This arm is **ALWAYS** raised LAST.

TRIP FOOT CLUTCH (14) to disengage bowl drive worm. **ALWAYS** disengage this worm before wheeling bowl out of machine.

LOOSEN "T" SCREW (25) and swing this lever to the right as far as it goes.

PULL OUT BOWL. When wheeling bowl back into machine drive **straight** towards machine, the bowl will then go in easily.

GREASING AND UPKEEP OF MACHINE

There are 12 alemite nipples on the ARTOFEX direct-driven platform type machines, one immediately behind the gear case on top, seven inside the gear case (three on each gear wheel and one in center), one on top where the two arm sockets join, one underneath the bowl and one on each bowl drive shaft bearing.

Have your operators grease each one of these nipples by means of alemite grease gun before starting the machine. Grease twice a week for the first two or three weeks and after that once a week.

The gear wheels should be given a few drops of oil from time to time so that they always run moist.

A few oil holes are provided; three on the bowl driving device, one on the bowl retaining hook, one on the bowl locking lever and one on each truck wheel. Pour a few drops of oil into these holes occasionally and also oil the foot clutch regularly.

Do not oil or grease the arms. Before raising the arms clean down by hand or with a piece of cloth, the stem portion disappearing into the socket, to prevent the arms becoming clogged and thus hindering their free up and down movement. If the arms should become clogged take them out of the sockets altogether and clean them (as well as the inside of the sockets) with hot soda water. There is a small piece of iron, called Quadrant, inside the right-hand mixing arm socket which lies between the thumb-screw and the arm. Should this fall out when removing the arm, replace it before inserting the arm. When you have put back the arms take care that the automatic locking device is correctly timed. For this purpose there are punch marks at the rear of the sockets and the hand-wheel pinions. Make sure that these punch marks correspond when arms are in lowest position as otherwise the automatic locking device will not work properly.

The V-belts on the direct-driven platform type machines should not run too taut or too slack. Any required tensioning is obtained by simply screwing up the adjustable motor platform. No dressing of any description must be used on the V-belts.

SEE REVERSE SIDE FOR SPARE PART CHART

FACTORY REPRESENTATIVES FOR U. S. A.

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FAIRVIEW, NEW JERSEY
PHONE: WH 5-1615

EXCELSIOR ENGINEERING COMPANY

ARTOFEX DIVISION

~~611 W. 43rd STREET, NEW YORK 36, N. Y.~~

~~TELEPHONE LOngacre 3-6131~~

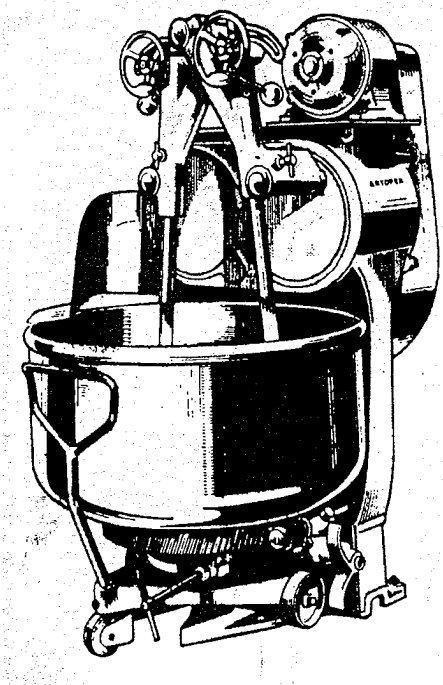
NEW
130 BR
FAIRVIEW,
PHONE:

PROFESSIONAL ENGINEERS

MANUFACTURER'S REPRESEN

INSTRUCTIONS

for Operation and Upkeep of the Patented "ARTOFEX" Mixer PAI



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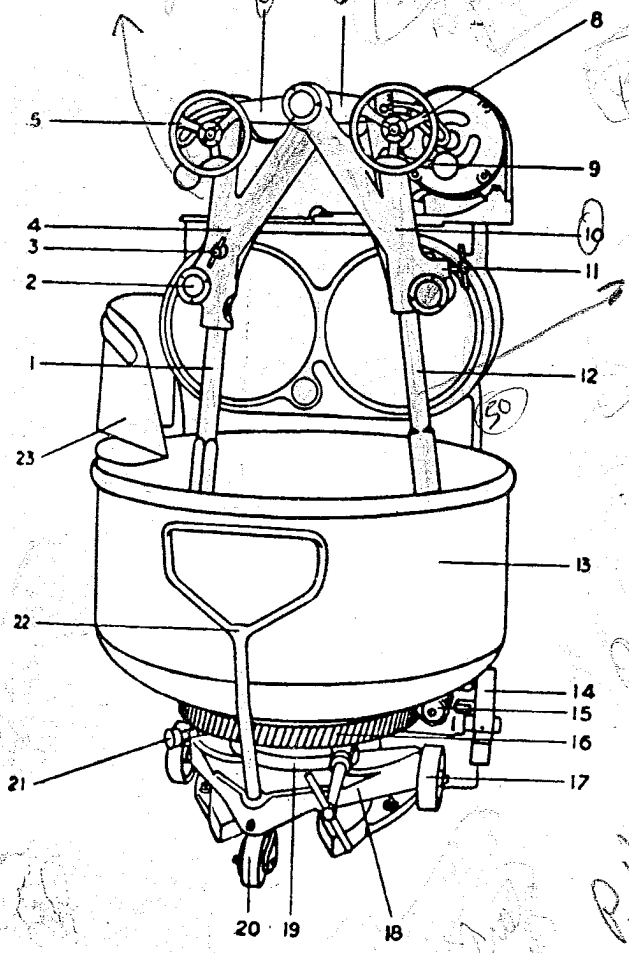

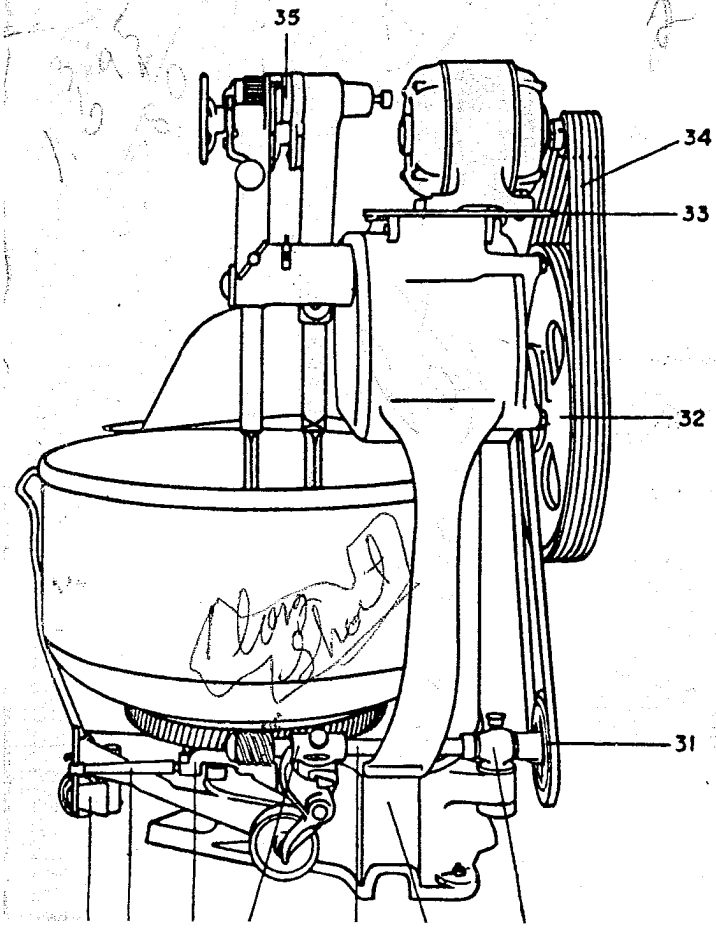

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14. Foot Clutch Pedal.
15. Worm for Bowl Drive.
16. Bowl Gear.
17. Side Caster for Bowl Truck.
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20. Front Caster for Bowl Truck (Roller only).
21. Alemite Fitting.
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27. Front Bearing for Bowl Drive Shaft.
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31. Bowl Drive Pulley or Sprocket.
32. Main Drive Sheave.
33. Motor Platform.
34. "V" Belt.