

KisanKraft® Warranty Certificate

(KISANKRAFT COPY)

Important: (1) Normal maintenance and adjustments to the product is the responsibility of the customer. (2) Normal wear and tear is not covered under warranty. (3) Rubber/plastic parts and consumables such as blades, clutch and clutch-bell, spark-plugs, nylon line, air-filters, fuel-filters, oil seals etc. are not covered under the warranty.

No Warranty On Electrical Motor / Electrical Parts / Battery Etc.

Incidental / Consequential Loss: KisanKraft Limited or its manufacturers will not be liable for general damages, including bodily injuries, or for incidental or consequential damages including, but not limited to, loss of use, loss of profits, loss of production, expense of substitute equipment or other commercial loss or damage.

Limitation of Liability: This limited warranty is in lieu of all other express warranties, obligations, or liabilities. Any implied warranties, obligations or liabilities, including, but not limited to, any implied warranty of merchantability shall be limited in duration to the applicable warranty period. Any action for breach of any warranty hereunder, including, but not limited to, any implied warranty of merchantability must be brought within the applicable warranty period.

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Receipt is required for availing warranty services

Jurisdiction: All disputes are subject to Bangalore court's jurisdiction.

Our Products	<ul style="list-style-type: none"> ◆Chainsaws◆Brush Cutters and Accessories◆Harvesters◆ ◆Engines and Water Pumps◆Hand Tools◆Garden Tools ◆ ◆Cultivators and Accessories◆Sprayers and Accessories◆ ◆Transplanter and Post Hole Digger ◆ Milking Machines ◆
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This warranty is null & void, if you fail to register the warranty with KisanKraft by sending the KisanKraft Copy with dealer's stamp.

KisanKraft Limited (formerly known as KisanKraft Machine Tools P Ltd)

🌐: www.kisankraft.com ✉: info@kisankraft.com ☎: +91.80.22178200

KisanKraft® Warranty Certificate

(DEALER COPY)

Product	Milking Machine	KisanKraft Invoice Date	
Brand	KisanKraft	KisanKraft Invoice No.	
Model	<input type="checkbox"/> KK-MLK-VB1 <input type="checkbox"/> KK-MLK-VB2		
WARRANTY PERIOD	6 MONTHS	FOR THE SPECIFIED PERIOD FROM THE DATE OF SALE OR DELIVERY WHICHEVER IS EARLIER.	
Dealer's Invoice Date		Dealer's Invoice No.	
Buyer's Info (Name, Address, Phone, etc.):		Dealer's Stamp (Address, Phone, TIN, etc.):	
Buyer's Sign		Dealer's Sign	

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Note: The purchase is not contingent upon a product demonstration. The purchaser shall satisfy himself with the product, including any product demonstration or verification of any function, before buying. KisanKraft Limited or its authorized dealers, including online sellers, shall not be liable to give any on-site demonstration after purchase of any of the product

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Wide Range of Products for Every Need



For more information give **MISSED CALL: 07676065555**



Many of our products have BIS: ISI certification.



User Manual

KK-MLK-VB1

KK-MLK-VB2



KisanKraft Limited










(Formerly known as KisanKraft Machine Tools Pvt. Ltd)

Sri Huchhanna Tower, #4, 1st Main, 7-A Cross, Maruthi Layout, Dasarahalli,
HAF Post, Hebbal, Bangalore 560024, Karnataka, INDIA

- ♦ Bangalore (HO) ♦ Ahmedabad ♦ Bhopal ♦ Bhubaneswar ♦ Coimbatore ♦
- ♦ Shimla ♦ Bhopal ♦ Hinudpur ♦ Hubli ♦ Hyderabad ♦ Jaipur ♦
- ♦ Karnal ♦ Kolkata ♦ Lucknow ♦ Nagpur ♦ Pune ♦ Raipur ♦

KisanKraft has a large range of products to serve the farmers. A list of our products is given below:

<p>Brush Cutters and Accessories</p> <ul style="list-style-type: none"> Brush Cutter/Power Weeder Backpack Brush Cutter Tea Pruner Pole pruner with Engine Reaper Attachment Blades-Circular Blades (2 & 3 points) Baffle Nylon Rope Tap & Go <p>Chainsaws</p> <ul style="list-style-type: none"> Petrol Chainsaw Electric Chainsaw Chain Sharpening Machine <p>Engines and Water Pumps</p> <ul style="list-style-type: none"> Engine –Diesel-(Horizontal) Engine –Diesel-(Vertical) Engine-Kerosene Water Pump with Petrol Engine Water Pump with Kerosene Engine Water Pump with Diesel Engine <p>Hand Tools</p> <ul style="list-style-type: none"> Secateurs Folding Saw Garden Rake Garden Shovel Hedge Shear Lopper Telescopic Hedge Shear Telescopic Lopping Shear Tree Pruner Telescopic Steel Pipe & Fruit Picker Bag Sheep Shear <p>Garden Tools</p> <ul style="list-style-type: none"> Electric Pressure Washer Hedge Trimmer Lawn Mower (Electric, Petrol & Manual) Leaf Blower 	<p>Cultivators and Accessories</p> <ul style="list-style-type: none"> Petrol and Diesel <p>Sprayers and Accessories</p> <ul style="list-style-type: none"> Battery Sprayer Portable Power Sprayer Trolley Sprayer Manual Knapsack Sprayer Manual Pressure Sprayer Rose Cans Hose Crimping Machine HTP Sprayer HTP Delivery Hose HTP Hose Reel HTP Stand HTP Gun / Lance(Brass Rod) Knapsack Power Sprayer Mister / Duster / Granuel Spreader HTP Sprayer Set with Diesel Engine HTP Sprayer Set with Kerosene Engine Fogging Machine <p>Milking Machine</p> <ul style="list-style-type: none"> Wood Shredder Fodder Ensiling Chaff Cutter Fodder Grinder Chaff Cutter Fodder Mini Chaff Cutter <p>Harvester</p> <ul style="list-style-type: none"> Maize Sheller Maize Sheller + Dehusker Maize Combine Harvester Onion Digger Carlotti Italy Tea Leaf Harvester Sugarcane Combine Harvester Sugarcane Leaf Stripper <p>Transplanter and Post Hole Digger</p> <ul style="list-style-type: none"> Paddy Transplanter (2 & 8 Rows) Transplanter-Vegetable & Tobacco Post Hole Digger(4" to 14"Augers)
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Milking Liners 	Milk Shell 	Steel(201)Pail Milk Bucket With Lid 
Vacuum Gauge 	Air Tube 	Milk Tube 
Rubber Milk Tube 	Gasket of Lid 	Y-joint 
Hose Connector 	Ball Valve Of Cluster 	Gasket- for Cover of 240CC Cluster 

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PARTS LIST

Pulsator(Vacuum) 	Repair Kits(Vacuum) 	Bucket Lid (Vacuum) 
Bucket Lid (Vacuum) 	Vacuum Tank(Vacuum) 	Vacuum Tank Cover with Gasket(Vacuum) 
Vacuum Regulator(Vacuum) 	Oil Can(Vacuum) 	On/off Switch(Vacuum) 
Cluster 240CC 	Cover Of 240CC Cluster 	Cow Milk Cup Group- 240cc Cluster 

TECHNICAL SPECIFICATIONS

	KK-MLK-VB1	KK-MLK-VB2
Animal	Cow or Buffalo	
Pump	Vacuum	
Pulsator	1 (L-80)	2 (L-80)
Tanks	1	2
Tank Size	25-Litres	
Tank Metal	SS-304	
Tank Weight	3 Kgs	
Vacuum Speed	200-L/Min	
Motor	1.1 kw	
Wheel	Normal	
Milk Claw	240cc Claw with Plastic Chassis	Economy Model
Trolley	All parts are made with SS-304, durable, good quality	Painted, MS body Economy Series

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BEFORE GETTING STARTED

We wish to thank you for choosing our portable-type milking machine. Before using this milking machine, please read this manual carefully, to operate and maintain this machine appropriately. By following the instructions in this manual you can protect the health of your cow/buffalo, improve the quality of milk sanitation, and extend the life of this machine.

BENEFITS OF MILKING BY MACHINE:

- Improves the milk sanitation:** When milking by machine, milk directly comes through disinfected seal into milk barrel which avoids contamination. Whereas, when milking by hand, milk is exposed to air, and maybe contaminated by surrounding dust in the air.
- Improves milking efficiency:** It takes only 3-5 minutes to milk a cow by machine. Whereas it takes 10-15 minutes to milk by hand.
- Improves the milk output:** Research of milking by machine over several years proves that the milk output can increase by about 5%.
 - This is because milking machine removes more milk from the udder of the cow/buffalo.
 - Machine milks four teats at the same time, and the rhythm of pulsator style and strength are same, so that it can make the cow adjust to it which is good for the growth of the cow/buffalo also.

SAFETY INSTRUCTIONS

Before using this equipment, please pay attention to the following safety guidelines:

- The voltage of the equipment should be in accordance with the requirement of the equipment (220-240 Volts AC). The power should have reliable grounding (earthing) protection line and other safety protection measurement.
- You must perform maintenance, disassembly, cleaning, etc. as per the schedule given in this manual.
- Please use suitable tools to assemble, disassemble, maintenance, etc. to avoid damage to the machine.
- Please contact an authorized dealers for any malfunction or repair needs.

Before Milking:

- Please confirm vacuum pressure is: Cow =48 kPa, Buffalo =56 KPA
- Please make sure that vacuum pump has lube oil.
- Please check that rubber milk lining liner is damage free.
- Please check that long and short milk pipe is damage free.
- Please check that the pipe of pulsator is damage free
- Please check that Pulsator is damage free
- Please check that Claw is damage free.

Symptom	Reason	Remedy
Pressure is not stable	Switch of the vacuum is not Turned off	Turn off the switch of vacuum
	Air-leak from the tie-in of pipe	Screw the tie-in
	Rubber parts are damaged and Air leaks	Change the rubber parts
	Vacuum gauge is not stable	Make the vacuum gauge stable
	Motor RPM is low	Adjust the regulator
Motor does not start	Motor does not work	Examine if the motor has pressure, if The connect line is cut or not; replace if The pressure of power are suitable for Pressure of motor If the motor is damaged, then contact Dealer to replace the motor.
Motor & Pump do not Work	Belt of motor is damaged	Replace the belt
	Motor is faulty	Repair or replace the motor.
Milk or water is in the pump		Inject the coal oil or gas into the Entrance hole of vacuum pump slowly, And press the hole at the same time. Turn the belt wheel according to the Arrow shown on the pump, until the Impurity in the pump is removed. Reinject the engine oil, after Installation, we can test the machine.

and a pulsation rate of 65 cycles/min (6.21 min. compared to 3.18 min.). The higher vacuum level, however, caused a significant increase in the somatic cell counts. Highest milk yield within an acceptable time were found when using 56 kPa and 65 cycles/min. In all trials a pulsation ratio of 50:50 was used.

5. In Italy, the majority of farms use the same machines for both buffaloes and cow. It is a simple "cow machine" with one vacuum level operating at approximately 40 cm Hg

Animal	Vacuum Pressure	Pulsator Frequency	Pulsation Ratio
Cow	48 kPa	50 cycle/min	65:35
Buffalo	56 kPa	65 cycle/min	50:50

TROUBLESHOOTING

Symptom	Reason	Remedy
Vacuum pump cannot be Started	The electric motor is not working	Check if the motor is working Check the connections. Make sure the power and pressure from motor is OK!
	Vacuum pump is faulty	Take the machine to the dealer for Repair
Fault of claw	Incorrect placing of gasket ring	Install the gasket ring correctly
	Gasket ring got damaged	Change the gasket ring
Vacuum degree is too Low	Pump oil seal is damaged	Change the pump seal
	Silencer is blocked	Disassemble the silencer, clean it with water or remove the rust
	Air-leak from tie-in of vacuum pipe	Screw the tie-in of parts, and replace the damaged rubber ring
Vacuum gauge needle is not stable	Vacuum regulator is blocked or is not clean	Remove the dirt from regulator and clean it.
	Vacuum gauge is damaged	Replace the vacuum gauge

8. Please check the vacuum pressure stabilizer and make sure that air filtration net and valve core are clean.
9. Please check the milk barrel, gasket ring of vacuum tank and make sure that it is free from any damage and air leakage.

OPERATION

Starting the Milking Machine (KK-MLK-VB1/VB2)

1. Before starting to milk, fill oil in vacuum oil tank and fix the can.
2. The valve should be in the OFF position before starting. After the liners are fitted to the teat (nipple) of the cow/buffalo, make sure the valve is in ON position.
3. Turn on the power of milking machine vacuum switch of vacuum tank, and start the vacuum pump, then the needle of vacuum gauge will rise stably.
4. Adjust the vacuum pump to make the needle point to normal vacuum degree position (48kPa), turn on the vacuum pump switch and now you can start milking.
5. Vacuum pump should be adjusted as follows:
 - a) Disassemble the cover of vacuum regulator, unscrew the nut of head of the vacuum regulator, and press the valve core of vacuum regulator several times to know if the valve core is locked by dust or dung etc. (Valve core should easily turn up and down).
 - b) Circumgyrate (turn round) the cover of valve core to adjust the vacuum degree. When circumgyrating, you can observe the change of needle of vacuum gauge. When the needle of vacuum gauge points the normal position, screw the nut quickly. Then observe the needle of vacuum gauge, continue adjusting till you get the correct vacuum degree.



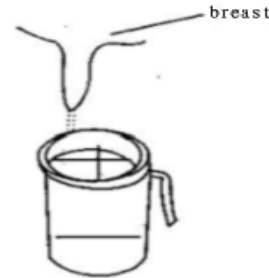
Note: The vacuum should be started normally, and the performance sound should also be normal.

If the vacuum degree is too high, the teat of cow will be damaged. If the vacuum degree is too low, it will influence the quantity of milking directly. (The normal vacuum degree, the needle should point to 48 kPa)

Milking:

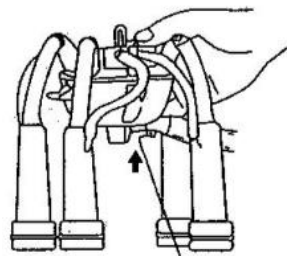
Initial Preparation:

1. Clean the udder and teat of the animal, and then dry it. You should clean the teat with sanitizing solution.
2. Initially you should milk by hand 2-3 times and then put the teat in the special cup to observe if the teat is normal.
3. After confirming that the teat is normal, and both udder and teat are dry, you should cover the claw within 1 minute.



Method of covering milk cup:

1. First hold the claw horizontal, and make the 4-pieces of milking liner fall naturally. Then the milking liner can close the 4-mouths of claws with the gravitation of stainless steel cup. Hold the claw horizontal, put the claw under the breast of the cow and open the switch of claw by the forefinger of the hand which should always hold the claw horizontal. (If the claw is declining, it will make the milking liner in the declining side air escape to influence the normal performance of milking machine.)
2. Hold the head of milk cup with the thumb, third finger and last finger of the other hand, and leave forefinger and middle finger to guide the teat put into the milking liner. Make the stainless steel cup upright, before doing it, you should disassemble the rubber pipe of bottom of milking liner to make sure the stainless steel cup will not air escape when put it upright, then cover the milking liner on the teat quickly. (If the cow has a teat which cannot milk, you should use the special rubber teat cap in the mouth of milk cup to avoid air escape.)



udder, in the alveoli and small ducts. Between two milkings there is no milk stored in the cistern. Hence, buffaloes have no cisternal milk fraction. The milk is expelled to the cistern only during actual milk ejection.

4. Because of the absence of cisternal milk between milking, in the teat cisterns, the teats are collapsed and soft before let down.

Physiology of milking

1. Buffaloes are said to be slow and hard milkers because of their slow milk ejection reflex and their hard teat muscle sphincter. The milk ejection reflex appears to be inherited to some extent but it is also a product of the environment. In buffaloes, the letdown time averages 2 minutes but may be as long as 10 minutes.
2. One reason for the longer let down time of milk for buffaloes is probably the different anatomy of the udder as compared to the dairy cow. In the buffalo, the udder cistern is absent or has a very small volume and therefore there is little or no cisternal milk available. This furthermore leads to no intramammary pressure in the cistern which would otherwise help the milk flow. In cow, the milk is already stored in the large cistern, and milk is available for extraction immediately after preparation. The high intramammary pressure contributes in pressing out the milk.
3. The intramammary pressure increases at the onset of milking. It is highest during the peak flow and decreases thereafter to zero at the end of milking. The pressure is higher in buffaloes during milking than in cow. The intramammary pressure varies between individuals and milkings. Its' level is not always indicative of a high milk production.
4. Let down time seems to be negatively correlated to milk yield. Let down time is shorter in early and middle stage of lactation as compared to in late lactation. A faster flow of milk is observed when the yield is higher.

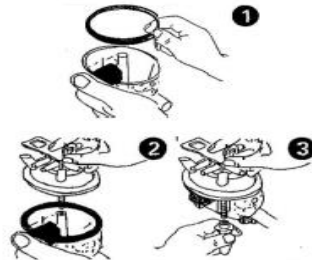
Machines for milking buffaloes

1. Since the udder and teats in buffaloes are different compared to cow, milking machines for cow have to be modified in order to fit buffaloes.
2. In general, a heavier cluster, a higher operation vacuum and a faster pulsation rate is required. Results from recent studies in India indicate that it might be possible to reduce the cluster weight and the frequency of liner slip by applying an appropriate combination of liner design and cluster weight.
3. It is not only the total weight of the cluster that is important, but also the distribution of its weight on the udder. Unequal weight distribution can cause uneven milk output. The long milk and vacuum tubes should be aligned and stretched to ensure equal weight distribution of the cluster on the udder.
4. Milking characteristics depend upon vacuum levels and pulsation rates among others. Studies on buffaloes revealed that a vacuum of 51 kPa and a pulsation rate of 55 cycles/min led to much longer milking times than a vacuum of 60 kPa

Maintenance:

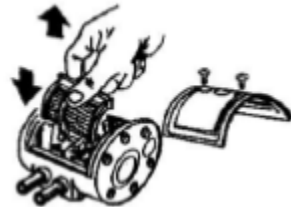
Claw's Maintenance:

After using claw for a long period, the gasket ring of the claw, the switch of the bottom will get distorted, as a result of which the air will escape, and the performance will suffer. Therefore we should test the claw at a fixed period, and change the damaged parts.



Pulsator maintenance:

Once in a month, open the stainless steel cover of the pulsator, and use the soft brush and clean cloth to wipe the dust and dirt in the pulsator, or use the wind blower (do not use hot air) **WARNING:DO NOT** clean the pulsator with alcohol, petrol or kerosene etc.



MILKING MACHINES FOR BUFFALOES:

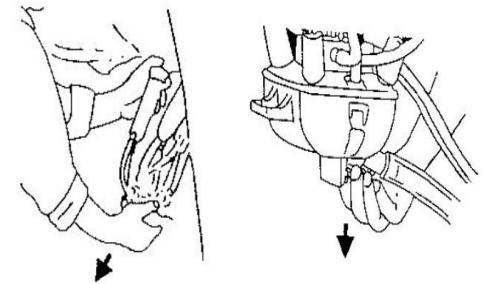
Buffaloes have been used for milk production for centuries. They have not been subjected to the same upgrading and breeding like cows of the western world. However, the buffalo is an excellent milk producer, given the correct circumstances. Milking the buffalo is not a difficult task. One should, however, take care not to implement cow milking techniques directly on the buffalo.

Anatomy of the buffalo udder and teat

1. The buffalo has an udder similar to the cow in the gross anatomy. Generally, their teats are larger than those of cow. According to several studies, cylindrical forms of the teats are most common in Murrah breed.
2. The anatomy of buffalo teats is slightly different from cow teats. The epithelium of the streak canal is thicker and more compact in buffaloes than in cows. The sphincter muscle around the streak canal is thicker in buffaloes than in cows. More force is therefore required to open the streak canal. The teat sphincter tonus has been reported to be at least 400 mmHg negative pressure in buffaloes. This is the cause of buffaloes being "hard milkers".
3. In cow, the milk is synthesized in the alveoli and is periodically transferred to the large ducts and cisterns of the mammary gland and the teat. This is not the case in the buffalo, instead, the milk is held in the upper, glandular part of the

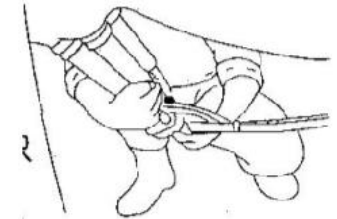
End of milking:

The time of milking of each cow is different, and usually, it takes 3-5 minutes to milk. When you see that all teats have almost finished milking, hold the claw with one hand, and pull the claw ahead, so that it can remove the milk left in the area of back udder. Pull the claw ahead again and if you find there is no milk left, you can take the cup off.



How to take the cup off:

1. When all teats have finished milking, you should take the cup off at once. When taking it off, you should pull the switch of claw down, and close the vacuum.
2. One hand is used to close the vacuum switch of claw, and the other hand to hold the four milk cups pull out declining.

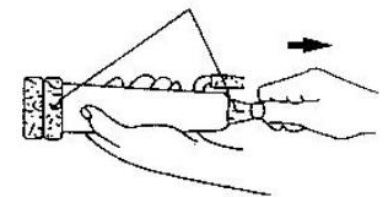


WARNING!

1. **DO NOT** milk after teat has finished milking, otherwise the cow will develop mastitis (infection).
2. You should not pull down the claw upright, or the vacuum left in the claw will damage the teat. First turn the teat at an angle, so that the air of teat will escape to reduce the vacuum from the claw, then come out naturally.

Installation of Rubber Milking Liner:

Put the milking liner in stainless steel milking cup. Please pay attention to the arrows in the head of milking liner and the part of connecting the pipe, and they both should be parallel. When pulling the milking liner from the stainless steel cup, pull it straight without any distortion. After installation, please ensure the two arrows are parallel.



CLEANING AND MAINTENANCE

Every day after finishing the milking, you must clean the milking machine.

WARNING: If you don't clean the milking equipment immediately after milking, the bacilli will propagate quickly.

Use of soap or detergent:

The component of the milk is complicated. Therefore, you should use special cleaning detergent to clean the milking machine, as it will not damage the rubber part of milking machine.

Type of cleaning detergent	Main Function	Suggested solution temperature	% of detergent in solution
Alkaline cleaning detergent	Milk fats, Milk protein Velum	Above 40°C	0.10%
Acidic cleaning detergent	Mineral substance	Above 40°C	0.10%

Daily Cleaning Sequence:

1. Clean the claw, milk pipe, and milk barrel by water.
2. **Cleaning preparation:** Use a big pot with full water, put the claw in the pot, turn on the vacuum pump, and absorb the water into milk barrel from claw. Turn off the vacuum switch of vacuum tank, open the cover of milk barrel, and then throw out the water.
3. **Circulation cleaning with cleaning detergent:** Pour the cleaning detergent of 0.10% concentration to about 70°C water and homogenize, put the claw in the pot, open the vacuum switch to absorb the hot cleaning detergent into milk barrel. After absorption, pour the cleaning detergent back to the pot, then circulate the absorption until the temperature falls to 40°C.
4. Clean with normal temperature plain water 2-3times, absorb the water from claw into milk barrel, and clean any remaining cleaning detergent in the equipment.
5. Pour out the water, dry the machine, and put the milking equipment in clean and airless place for the next time use.

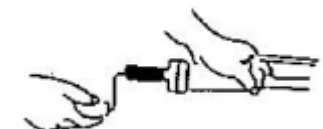


6. Normally, the Alkaline and acidic cleaning detergent is used in cycle i.e. 3-days Alkaline, then 1-day Acidic cleaning detergent.

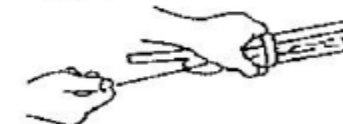
Disassemble Cleaning:

After using the milking machine for two weeks, you must perform a disassemble cleaning. Warning: During disassemble cleaning, special cleaning tools must be used else it may damage the parts of milking machine	<ol style="list-style-type: none"> 1. Milking Liner Brush 2. Claw Brush 3. Pipe Cleaning Brush 	
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Cleaning of milking liner



Cleaning of milking Pipe



Cleaning of inside of Milking Claw:

Disassemble the claw and use the special brush with cleaning detergent to clean the parts thoroughly, until the surface of the parts are clean.



Cleaning of bottom of claw:

There is a pothook that has a little hole. The function of the little hole is to make the milk flow into the barrel smoothly. Therefore it is very important to keep the hole clean. Please use the little needle for cleaning the little hole.

