



Kryos milk cooling tanks

- High efficiency cooling
- Superior sanitation
- Accurate measuring
- Intelligent control
- Low running costs
- From 885 to 10000 litres

New technology to protect your valuable milk

Digital dipstick (optional), a WestfaliaSurge exclusive, provides sensitivity to 0.1 mm and accuracy of 0.2 % — far better than ordinary measurement devices.

WestfaliaSurge combines the most modern technologies for milk preservation, sanitation and long-term reliability in one compact, easy-to-use milk cooling tank. No other tank combines all of these features in such an attractive unit.

- **Highest quality standards:**

- Conforms to EN 13732 standard: Milk coolers on farms.
- Conforms to EN 60204 standard: Electrical equipment and safety of machines.

The conformity of the approved models is certified by the **European third party certification mark, KEYMARK**, guaranteeing conformity to the European standards EN 13732 & EN 60204 covering performance, construction, quality, safety, health and environment.



The KEYMARK is granted by competent and independent certification organisations admitted by the CEN and CENELEC organisations (European Committee for Standardization and European Committee for Electrotechnical Standardization) after a certification procedure including:

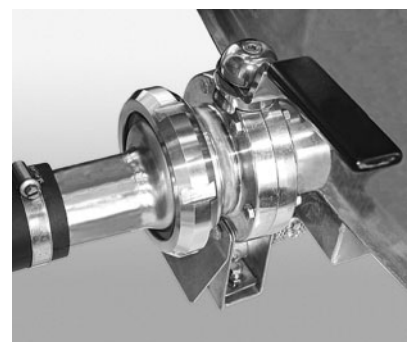
- conformity testing of the product,
- evaluation of quality control procedures,
- inspection on the production site.

- **Efficient, high capacity cooling** with exclusive S.T.I. & S.T.I.L. type evaporators.
- **More efficient sanitation:** Exclusive dynamic water intake A.E.D. system assures better tank cleaning.
- **Most precise measuring:** Each tank is individually calibrated and supplied with a calibration chart; calibration approved by several weights and measures authorities around the world.
- **Exclusive digital dipstick:** Automatically measures and displays milk volume. The fastest and most accurate reading possible.
- **Environment-friendly insulation:** Our "green foam", injected between the inner and outer tanks, uses no CFCs and offers superior insulating properties.
- **More choices:** Wide variety of tank capacities from 885 to 10,000 litres.

Expert: the industry's most advanced tank controller is easy to use and with optional Expertise software, allows data collection and analysis.

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Ø 76 mm butterfly valve is ready for high speed pumping and adapts to any future milk collection requirements.

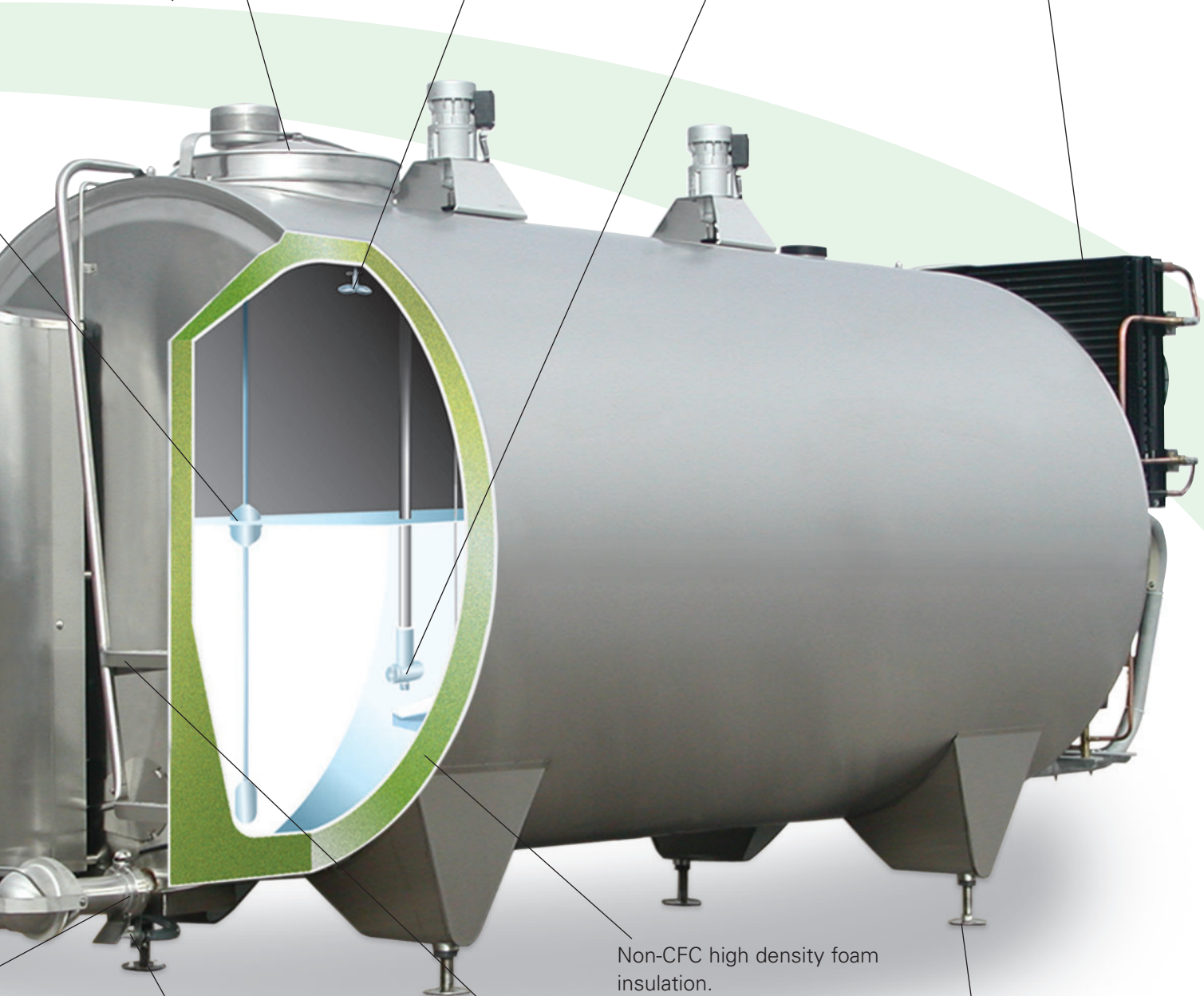


Double hinged manhole lid allows vertical and lateral opening, fits tight without gasket and locks for added security.

A.E.D. dynamic water intake.

Compact cooling unit.

Rotary wash diffuser.

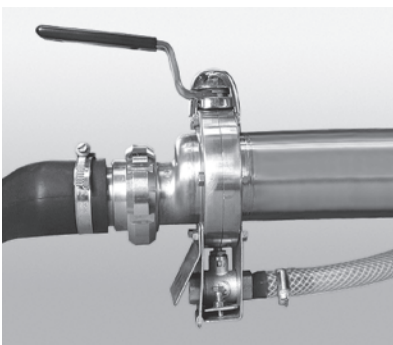


Non-CFC high density foam insulation.

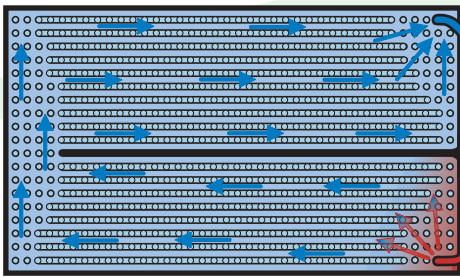
Anti-dilution safety valve prevents water from entering tank. Patented.

Large work platform on the tank front, clear access to the outlet valve and allows for safe, easy access to the manhole.

Long lasting, solid stainless steel legs are easy to adjust.



High efficiency cooling



S.T.I. evaporator.

S.T.I. & S.T.I.L. evaporators: The heart of the cooling system.

In a milk cooler, cooling is obtained using an evaporator, the basic element of the circuit, into which a refrigerating medium is sprayed.

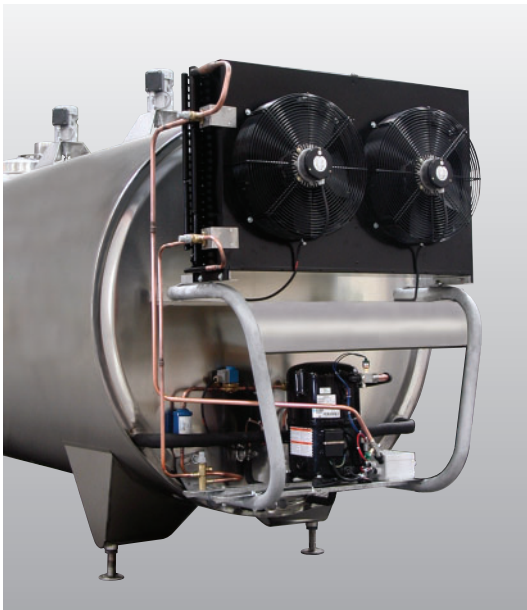
WestfaliaSurge developed the **S.T.I. (Semi-Tubular Integrated)** and **S.T.I.L. (S.T.I. Laser)** evaporators with a higher thermal exchange coefficient than ordinary evaporators.

What does that mean?

- Faster cooling,
- Reduced energy consumption,
- Unequaled reliability and durability,
- No milk freezing,
- Longer compressor life (better oil return to lubricate compressor).

Kryos tanks up to 3600 litres are equipped with S.T.I. evaporators.

Kryos tanks from 4200 litres are equipped with S.T.I.L. evaporators: S.T.I. concept adapted to laser welding technology and specially designed for large capacity tanks.



Compact cooling units.

Compact cooling units: Ready to use.

The compact assembly of the cooling unit at the rear of the tank with a reverse condenser in the top part offers easy access to the fan motors and natural protection of the condenser fins. Its high position makes it less sensitive to dust. Compact cooling units are equipped with reciprocating compressors up to 6.5 Hp and SCROLL compressors above. Tanks equipped with large cooling units are delivered with detachable condensers or separate cooling units.



Separate cooling units.

Separate cooling units:

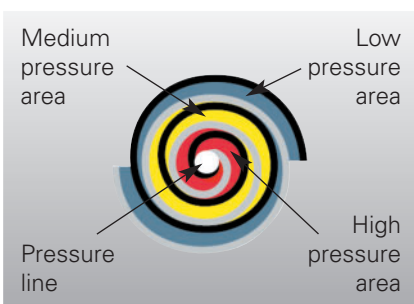
A wide choice of cooling capacities and technologies to meet the requirements of each dairy farm.

- Cooling units equipped with reciprocating compressors from 1.125 to 6.5 Hp.
- Cooling units equipped with SCROLL compressors from 2 to 15 Hp.

New SCROLL technology

- High energy efficiency: 20 to 25 % energy savings,
- Amperage reduced by 30 %,
- Reliable: high tolerance to liquid slugs entering the compressor, fewer moving parts,
- Multi refrigerant (R-404A, R-22, R-134a, R-407C),
- Low noise level.

In a **SCROLL** compressor, compression of gas is created between a stationary spiral and a rotating spiral. The rotating spiral is eccentrically mounted on the drive shaft and describes an orbital motion.

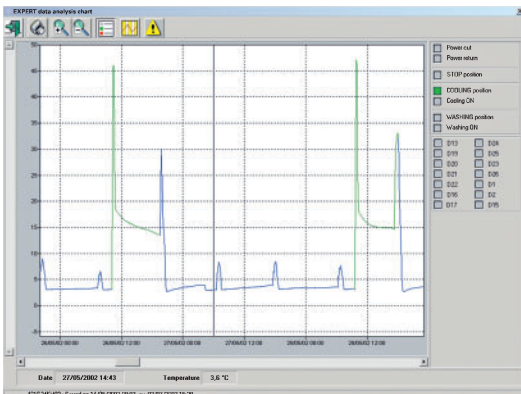


Expert precise control

Intelligent control of all tank functions.



- Clearly shows all information on a 32-character LCD display.
- A control mechanism for all cooling and cleaning functions.
- Monitors the milk quality and the tank functions.
- Stores the operating data for 2 months.
- A safety thermostat ensures emergency cooling.
- Can be connected to the DairyPlan System
- Optional Expertise software enables you to collect and analyse data.
- Warning signal when the cleaning agent canister is empty
- Expert XG operation with additional monitoring function (optional)



The alarm module (option) installed in the milking room warns the operator in case of anomaly.

Superior sanitation protects milk quality

After keeping milk at the right temperature, the next most important function of a milk tank is to keep milk pure.

That's why WestfaliaSurge has invested so much attention to milk tank sanitation. The Kryos milk tank offers an unequalled washing system that assures the highest possible milk quality.

A.E.D. dynamic water intake

Injected through a separate circuit, the water is sprayed on to the inner sides of the tank to remove milk residues and solid particles. It is used in cleaning cycles.



Rotary diffusers

Rotary diffusers are independent from the agitator so cleaning of the agitator blades is improved. No water is fed through the gear motor and thus no gearbox damage can occur.



High capacity wash pump

The powerful wash pump, combined with the rotary diffusers, provides the power for efficient washing.



Dosing pumps

Save time and labour when filling detergent compartments. Two pumps automatically dispense detergents directly from containers. The Expert manages the cycle and exact metering of the cleaning agents.



Further options and accessories



Digital dipstick

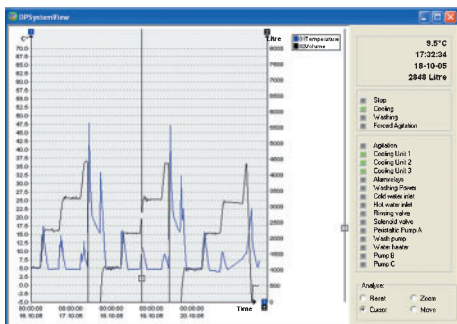
Patented by WestfaliaSurge, this is the only digital measuring device of its kind approved by several weights and measures authorities around the world. Accurate to 0.2 % with 0.1 mm sensitivity, the digital dipstick eliminates human error in measurement. It automatically measures and displays milk volume.



DairyManagementSystem 21

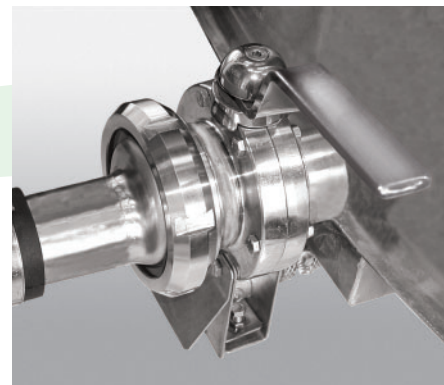
The digital dipstick can be connected through Expert to DairyPlan management software:

- real time access to milk tank data and parameters from the PC,
- recording of milk tank historical data and stored volumes.



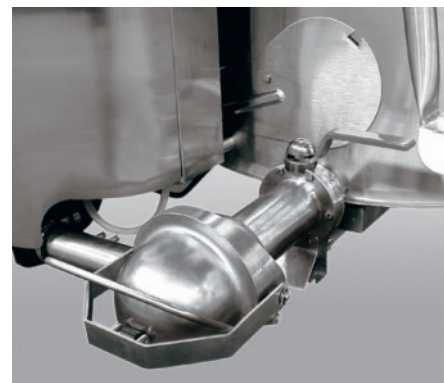
Outlet valve couplings

The Ø 76 mm outlet valve can be equipped with Ø 76, 63 or 51 mm threaded coupling to fit any collection requirement.



Self washing outlet

Allows automatic washing of the threaded coupling. Available with Ø 76, 63 and 51 mm couplings.



Water heater

Electrical instantaneous water heater matched to the tank capacity, can be mounted in the washing unit. An optional washing temperature is assured.



Heat recovery

The PH brazed plate heat exchangers of the heat recovery system can be factory mounted on the cooling units. They guarantee optimum energy recovery and constant hot water provision.



Summary of versions and their features

	Calibration	Filling level graduations	Dipstick	Table	Digital dipstick
Standard	No	No	No	No	No
Advance	No	No	Yes	Indicative	No
Comfort	Yes	Yes	Yes	Approved	No
Premium	Yes	Yes	Yes	Approved	Yes standard version or DP

Other options and accessories

- Disinfection cycle: automatic disinfection at the end of the wash cycle or just before milking. This requires a third dosing pump.
- Separation of milk-contaminated wash water.
- Internal ladder.
- Heat recovery systems with internal or external heat exchanger.
- Voltage monitoring relay.
- Detergent can support.

Kryos milk cooling tanks – specifications



Type	D = 1215					D = 1510							
	885	1010	1410	1710	2110	2400	2700	3100	3600	4200	5200	6200	
Max. capacity in litres	930	1060	1450	1830	2250	2660	2960	3260	3760	4350	5325	6350	
Number of legs	4	4	4	4	4	4	4	4	4	4	4	4	
Number of agitators	1	1	1	1	1	1	1	1	1	1	2	2	
Number of diffusers	1	1	1	1	1	1	1	1	1	1	2	2	
Length, compact cooling unit ① ③	A	2020	2140	2550	2950	3390	2840	3030	3230	3530	3940	4580	5250
Length, separate cooling unit ①	B	1720	1840	2250	2650	3090	2460	2650	2850	3150	3560	4200	4870
Height with agitator motor	C	1695	1700	1705	1710	1715	2005	2005	2025	2030	2050	2060	2080
Minimum height ②	E	1430	1430	1430	1430	1430	1730	1730	1730	1730	1730	1730	1730

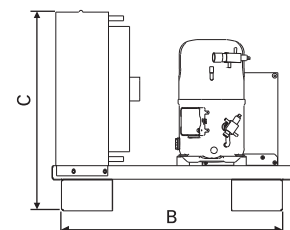
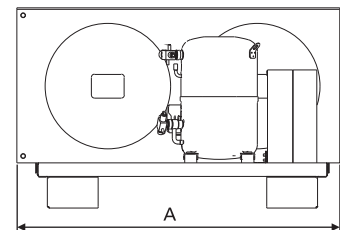
Type	D = 1785						
	5000	6000	7000	8000	9000	10000	
Max. capacity in litres	5120	6165	7160	8190	9200	10300	
Number of legs	4	4	4	4	4	4	
Number of agitators	1	1	2	2	2	2	
Number of diffusers	1	1	2	2	2	2	
Length, compact single cooling unit ①	A	3620	4100	4590	5060	5540	6050
Length, compact double cooling unit ①	A	3520	4000	4490	4960	5440	5950
Length, separate cooling unit ①	B	3140	3620	4110	4580	5060	5570
Height with agitator motor	C	2300	2305	2330	2340	2360	2370
Minimum height ②	E	1980	1980	1980	1980	1980	1980

Separate cooling unit dimensions			
Power in Hp	A	B	C
2 → 2.5	1000	805	580 ①
3 → 6 ②	1080	805	675 ①
6 ③ → 7.5	1200	905	815
10 → 13	1590	800	1025
15	1680	800	1130

① With brazed plate heat exchanger
C = 690.

② 6 ch piston.

③ 6 ch Scroll.

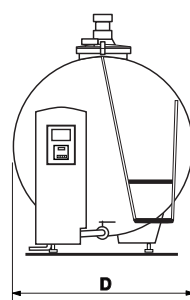
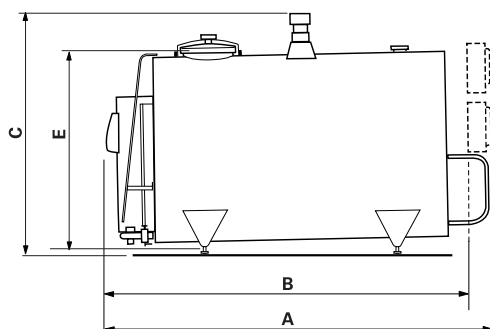


Dimensions are in mm.

① Self washing outlet: add 40 mm.

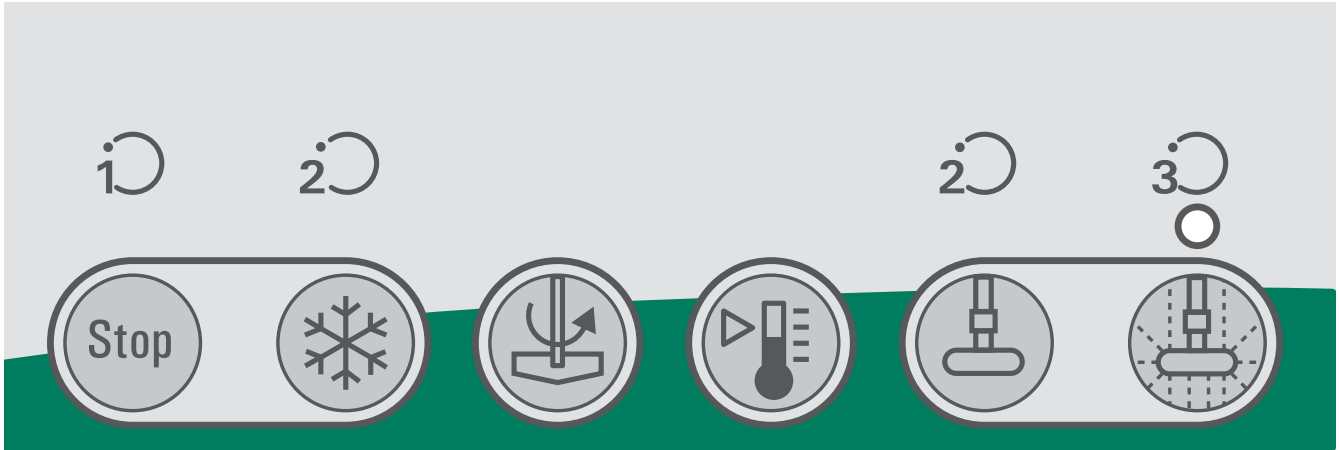
② Height for door passage: Without legs, agitator motor and support, lid, without condenser if higher than tank.

③ Tanks equipped with 10 & 13 Hp cooling units: add 100 mm.



Systems – Service – Success

The Kryos range of cooling tanks combines high cooling performances with the efficiency of its patented washing system ensuring quality milk production.



ProFormance^o

Modern system solutions and regular technical servicing for maximum performance and highest quality milk

Individual consultancy and planning of installations for your business: perfectly matched components, customer-specific system solutions and a variety of measures for continuous system optimisation.

ProMilk[✓]

Comprehensive service and product concept for top quality milk

On-site individual customer service provided by the hygiene experts in order to ensure optimum hygiene during milking. Advice on the effective use of products for installation and animal hygiene.

ProDairySupplies[^]

Spare parts, regular technical servicing and accessories for first class milk production.

A customised solution for every dairy farm: professional-grade accessories, spare parts and all your consumable needs for economical and reliable milk production.

Dealer area

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