



GEA Farm Technologies

## Sureflush

### Automated cluster flushing

to disinfect clusters between cows in the parlour

- ✓ Minimises cross-infections of contagious mastitis pathogens;
- ✓ Improves herd health and milk quality;
- ✓ Automated cluster back-flushing saves labour;
- ✓ Every cow, every milking;
- ✓ Complete - whole cluster and milk tube;
- ✓ Efficacy tested and proven results;
- ✓ Safe, simple and reliable;
- ✓ Suits most parlour systems.

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GEA Farm Technologies - The right choice.

# Sureflush

## The basic function:

- A 350ml pressure vessel at each point is gravity-filled with flushing solution from a header tank.
- The flushing solution contains an approved disinfectant based on peracetic acid that is measured accurately using a dosing pump.
- A y-piece connects the pressure vessel to the long milk tube. Compressed air forces the flushing solution out of the pressure vessel, through the long milk tube and through the cluster, discharging from the teat cup liners onto the parlour floor. The pressure vessel refills with flushing solution and the cluster is flushed for a second time. A longer air blast then removes excess solution from the cluster and long milk tube and the unit is then ready for the next cow.
- For swingover parlours the flushing sequence starts as soon as the cluster comes off the cow. This enables the cluster to be ready for reattachment at the end of the 15-20-second flush sequence.
- For doubled up parlours all the units on one side of the parlour are flushed together during cow exit and entry.

## It's all in the flask!



The Sureflush safety dosing flask has been specifically designed to ensure the safe discharge of controlled and consistent amounts of disinfecting solution in a repeatable and reliable manner. It avoids the use of solenoid valves close to milk supply lines, as once these fail chemical discharge into the milk is possible. The Sureflush flask features twin safety valves which means, in the event of seals failing, only air will be drawn into the milk lines. Service kits are available for the long life valves with recommended replacement or service every 5 years.

## What users say:



(Left) Matt Boyd, Hillowton Farm, Castle Douglas

*"We tried manually spraying the clusters but it was very time consuming. We were sold on the concept so all we have done is to automate it and now we are keeping cell counts down. The automated system could save up to half an hour a day on our twice daily milkings, and now we know the clusters and liners have been disinfected thoroughly. It gives us peace of mind and improves our whole routine."*

(Right) The Harrison Family, Low House Farm, Armathwaite

*"It has lessened our cases of clinical mastitis by up to 40% because the system has ring-fenced it. The new automated system has saved 15 minutes at each milking and we are much more relaxed, knowing the job of cleaning the clusters and so far up the liner is being taken care of and, importantly, knowing the cows are not suffering by reducing the incidence of infection."*



In an unedited survey of system users the following results were reported. Please note that no specific claim or guarantee of results is given and that these are simply indicative of real user experiences. In addition to backflushing installation other factors may have changed in either a positive or a negative direction. For the best results we recommend an individual consultation by one of our GEA Farm Services Field Managers.

Farm	Cows	Yield (Litres)	Months since Sureflush Installed	SCC pre Sureflush	SCC post Sureflush	Change in incidence of clinical mastitis	Comment
A	185	7,500	3	370,000	220,000	-75%	Cell count reduced clinical mastitis from 26 to 5 per month
B	120	8,500	5	241,000	173,000	-10%	Very pleased with results. No other changes made to routine
C	170	9,000	12	250,000	130,000	Less	Cell counts down - Bactoscans down. No other changes made.
D	200	10,000	11	230-250,000	150,000	-10%	Very pleased with results. No other changes made to routine
E	200	8,500	6	320,000	<200,000	Less	Very pleased - also culled six high cell count cows.
F	130	9,000	12	220,000	160,000	Same	Rising cell counts are now falling. Fresh calvers clean
G	150	9,200	16	190,000	150,000	-75%	Rising cell counts are now falling - reduced clinical mastitis
H	260	9,300	12	240,000	220,000	Less	Used to dump ten high cell cows - now all milk in tank
I	183	6,500	1	240,000	240,000	-90%	One case of clinical mastitis since Sureflush - was 15 per month
J	100	8,200	9	250-300,000	139,000	Same	Very pleased - pre-spraying introduced at same time as Sureflush
K	140	10,000	12	265,000	195,000	Less	Cell counts and mastitis low in cows calved since Sureflush installed
L	170	6,500	3	Variable	<250,000	Less	Very pleased. Now hitting bonus - mastitis and bactoscans down
M	205	6,500	7	300-350,000	220	-50%	Bactoscan halved. Was dipping clusters - Saved 3/4 hour per milking
N	180	8,000	7	200,000	200,000	Same	Was dipping clusters - was milking with two men now with one

## Q&A

### How is Sureflush effective?

Contagious mastitis pathogens, such as *Strep. agalactiae* and *Staph. aureus*, are spread in milk from cow to cow generally at milking, with contaminated residual milk left on the cluster surfaces normally posing the biggest threat. *Staph. aureus* causes mastitis that is persistent, highly infectious and difficult to treat, and research shows that pathogens from an infected cow can remain in the liners even after 6-8 cows have been milked. Sureflush cleans and disinfects the entire cluster to prevent the spread of bacteria through the herd.

### Does it slow down milking?

Milking out is not affected since there is no restriction to the vacuum supply to the cluster. In parlours with one unit per milking stall, Sureflush operates during cow exit and entry so will not delay cluster attachment. In swingover parlours Sureflush operates immediately after cluster removal, taking 15 to 20 seconds to complete the cycle. There may therefore be some delay to cluster attachment. However in herds where contagious mastitis is a problem this is likely to be more than compensated by less time spent treating clinical mastitis.

### Can it be installed in any make of milking parlour?

Yes, although some modification of the clusters may be required.



*Above: a pair of pressure vessels and controller mounted in a swingover parlour*

## Benefits of Sureflush:

- Sureflush uses a controlled volume (350ml) of disinfection fluid is used for each flush;
- A vigorous slug action ensures thorough cleaning;
- Sureflush disinfects the complete cluster as well as the milk tube;
- Sureflush is completely automatic - there is no additional labour requirement;
- Low service and maintenance requirement as a result of no peracetic acid passing through the solenoid valves;
- Sureflush's fail-safe design prevents contamination of the milk with the flushing solution in the case of equipment malfunction;
- Very simple system -easily understood by new or temporary operators.



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