

WAIKATO®

MILKING SYSTEMS

OPTIBLEND

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**MAINTAIN OPTIMUM
FARM HYGIENE AND
UDDER HEALTH FOR HIGH
QUALITY CLEAN MILK**



**ENSURE THE OPTIMUM PREPARATION AND MILKING ROUTINE
TO PREVENT MASTITIS and grow the value of your dairy**

WAIKATOMILKING.COM

OPTIMIZE YOUR HYGIENE AND UDDER HEALTH, WITH OPTIMUM COST SAVINGS

CUSTOMIZE YOUR HYGIENE PROGRAM, AND TAKE CONTROL OF YOUR COSTS

The Waikato Milking Systems OptiBLEND Hygiene System is an on-farm blender that allows you to produce high quality chlorine dioxide-based formulas to suit your farm's specific hygiene and herd health requirements.

The patent pending OptiBLEND Hygiene System is the first of its kind and the best way to take advantage of chlorine dioxide's powerful effectiveness for your herd, while saving money by blending directly on your farm. The OptiBLEND system combines its concentrated precursors with water, already available on your farm, to produce customized formulas - reducing the packaging, handling, and shipping costs associated with pre and post dip chemicals which are larger because they are pre-mixed with water.

The system is easy to install, easy to service, and no calibration is required.

ADVANTAGES

Waikato Milking Systems puts the cost of hygiene firmly in control of the operator, not the manufacturer.



Customized dairy hygiene programs
Enables you to customize your program and solution to match your herd health requirements.



Utilize one of the most effective hygiene agents
Chlorine dioxide has a fast, wide spectrum of biocidal kill, at low concentration.



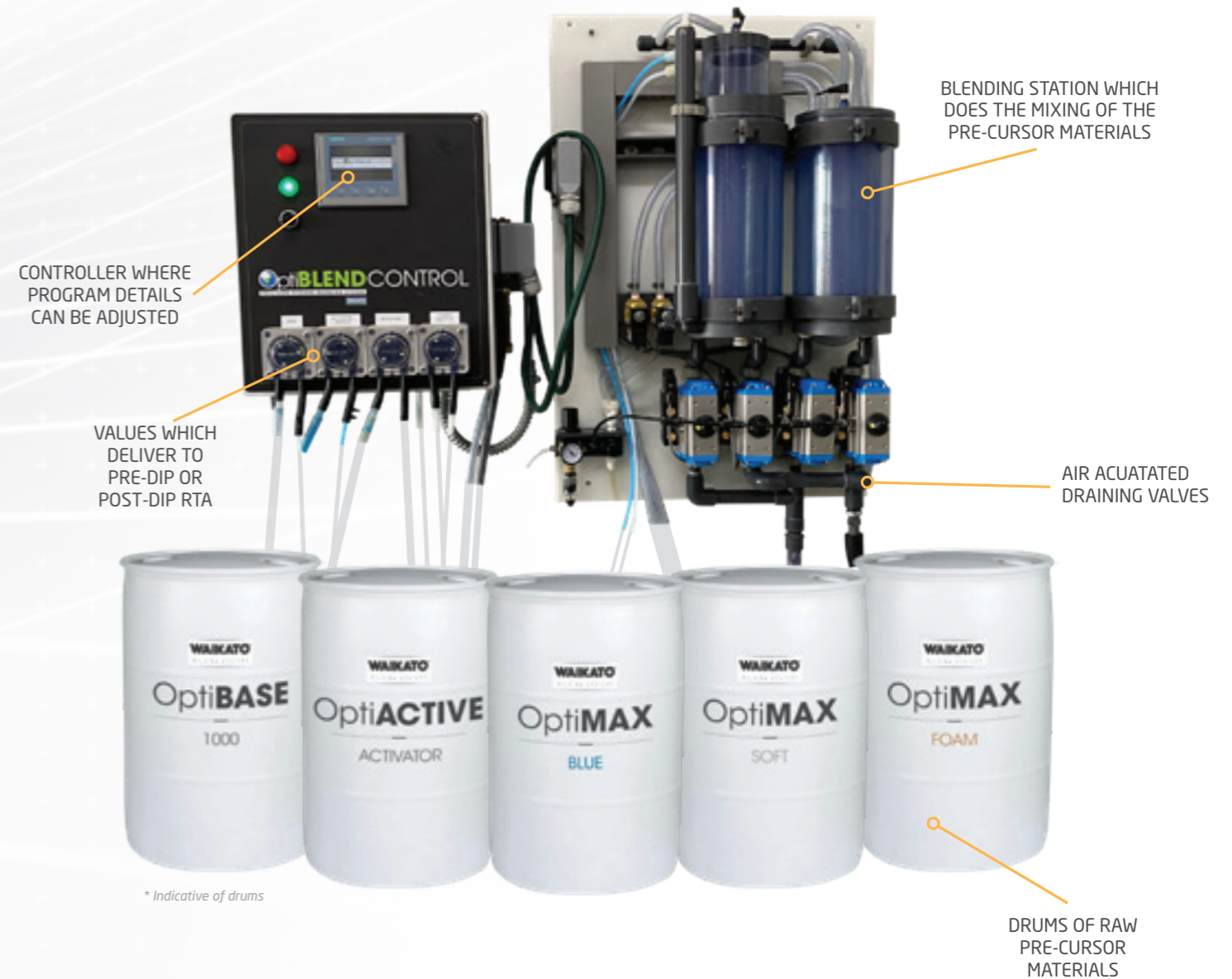
Super concentrated
Due to the concentrated nature of the products, you can make any formulation of product strength (ppm) and conditioners from 4 concentrated ingredients; 2 x 55 gallons makes 256 x 55 gallons of OptiPREP on farm.



Cost effective for dairy
With lower packaging costs, lower handling fees, less freight, reducing on farm costs.

LOWER PACKAGING COSTS, LOWER HANDLING FEES, LESS FREIGHT = HIGHER VALUE

The core of this solution is the patent pending OptiBLEND precision hygiene blending system, the only system of its kind and the only way to take advantage of Chlorine Dioxide's powerful effectiveness for your dairy herd. One gallon of concentrate makes 128 gallons of OptiPREP, utilizing your farm water. Less packaging means you will save on costs of shipping and handling, adding value to your dairy operation.



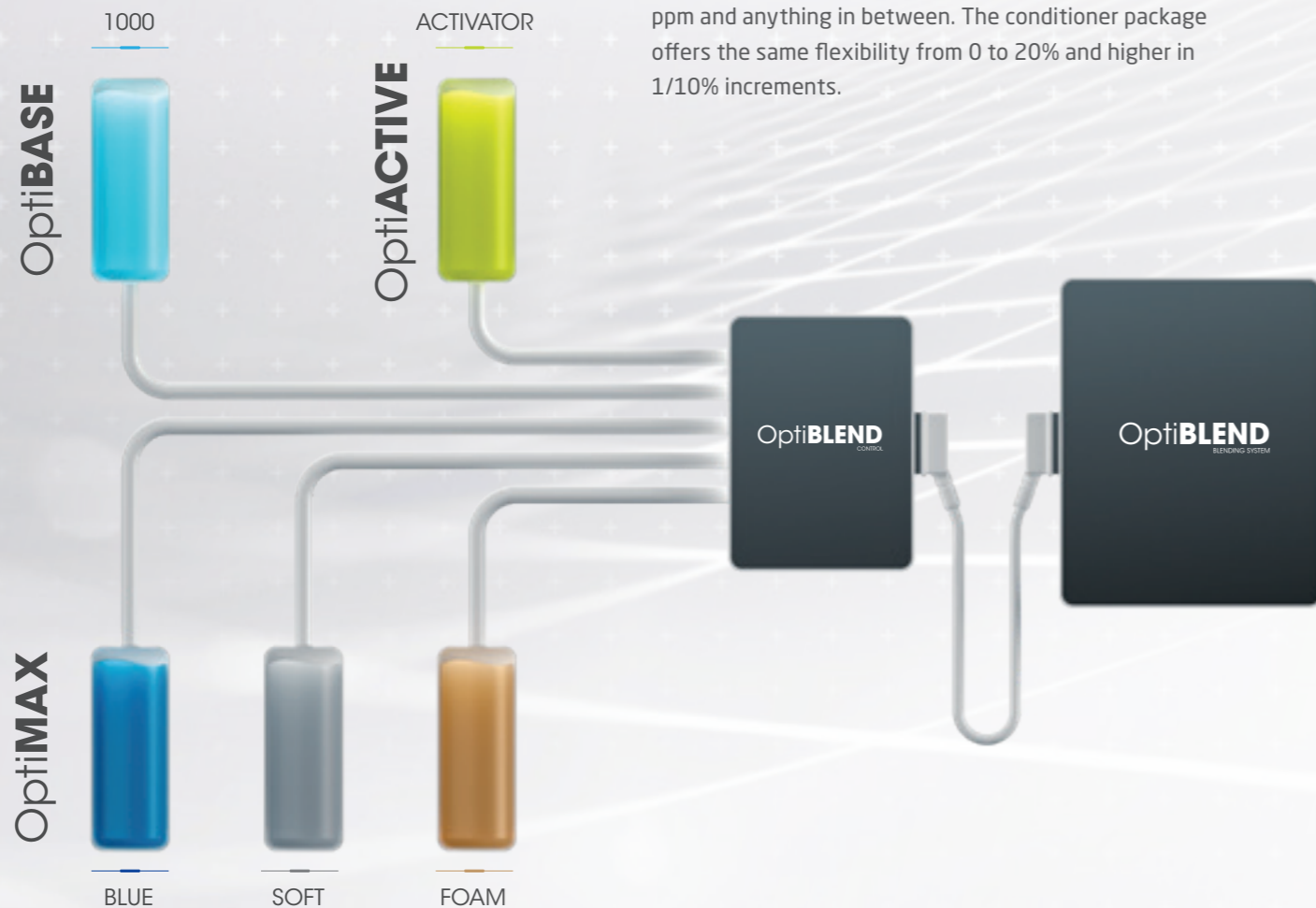
BLEND CHLORINE DIOXIDE FORMULAS TO SUIT YOUR SPECIFIC REQUIREMENTS

OptiBLEND's easy-to-program system volumetrically measures each formula component within each solution - with unparalleled accuracy and consistency.

By using our highly concentrated OptiPREP Activator, base, emollient, foam, and color precursors combined with water, the OptiBLEND system produces formulas to provide you with the most effective and cost-effective hygiene solutions for your farm.

The OptiBLEND Hygiene System enables you to customize formulas for pre-milking, post-milking, and facility hygiene through one easy system - and the formulas can be varied for higher or lower requirements.

OptiBLEND can make a pre or post dip product to the exact specifications of the farm. 25ppm, 50 ppm, 100 ppm, 250 ppm and anything in between. The conditioner package offers the same flexibility from 0 to 20% and higher in 1/10% increments.



NOTHING BEATS CHLORINE DIOXIDE FOR PRE-MILKING AND POST-MILKING HYGIENE.

We only use chlorine dioxide in our OptiBLEND formulations - because no other technology has a faster, wider spectrum of biocidal kill at a lower concentration - making it perfect for pre-milking sanitization.

Chlorine dioxide's ability to provide a low drip, post-milking formulation also ensures the optimum milking-to-milking prophylactic disease protection.

TWO SIMPLE CUSTOMIZABLE FORMULATIONS FOR UDDER HYGIENE

To keep it simple for our customers, the OptiBLEND Hygiene System produces two chlorine dioxide-based udder hygiene formulations - which can be customized to suit your farm's specific hygiene and herd health requirements:



OptiMAX PREP

OptiMAX PREP is a versatile pre-milking formulation that can be sprayed, dipped, or foamed on your cows. Formulated specifically for a wide range of pre-milking application types, OptiMAX PREP is a foaming, chlorine dioxide-based pre-milking teat/udder cleaning solution.



OptiMAX POST

OptiMAX POST is a post-milking formulation that can be customized to your herd, environment or individual hygiene requirements. Formulated specifically for a wide range of post-milking application types, OptiMAX POST delivers a powerful, wide spectrum germicidal solution for a fast kill. As a foaming, chlorine dioxide-based post-milking teat/udder cleaning solution, OptiMAX POST can be dipped, sprayed or foam applied.

MADE ON FARM, TO YOUR SPECIFICATIONS, READY TO GO

Chlorine dioxide-based technologies differ from almost every pre & post milking hygiene product in one major way - The chlorine dioxide is activated on-site!

Every month millions of gallons of water, contained inside pre and post dip chemicals, are shipped and delivered to dairy farms across the country – and guess who pays the shipping costs. There's proven technology in the animal hygiene sector that's been available for many years, but the key to making it work properly has been lost; making these solutions much harder to be effective, and understood.

PUTS YOU IN CONTROL OF MEASURABLE AND PROVEN GERMICIDAL TECHNOLOGY

Germicidal strength is measured for consistency and compared with traditional hygiene technologies. Utilizing the industry standard ORP (Oxidation Reduction Potential) technology, provides a measurement of the ability of a solution to oxidize disease causing pathogens.

By activating the chlorine dioxide separately from the emollient system, the solution activates a higher level of the base, and the solution performs at a higher ORP level! The OptiBLEND solutions provide a comparatively longer shelf-life (RTU mixed) than other chlorine dioxide-based products.



* Indicative of drums

EFFECTIVE, CONSISTENT COW HYGIENE WITH CHLORINE DIOXIDE

PROVEN EFFECTIVENESS EVERYTIME

Oxidation-reduction potential, or ORP, is a measurement that indicates the degree to which a substance is capable of oxidizing or reducing another substance. ORP is measured in millivolts (mV) using an ORP meter.

A positive ORP reading indicates that a substance is an oxidizing agent. The higher the ORP reading, the higher the oxidizing capability of a solution or oxidizing agent. As such, a substance with an ORP reading of +700 mV has 2 times more oxidizing capacity than a substance with an ORP reading of +500 mV.



| PATHOGENS | PATHOGEN SURVIVAL TIME AT ORP LEVELS | | | |
|-------------------------|--------------------------------------|--------------|--------------|---------|
| | < 200mV | 500 - 600 mV | 600 - 700 mV | 700+ mV |
| E.Coli (0157:h7) | > 300 secs | > 60 secs | > 10 secs | > 1 sec |
| Salmonella spp. | > 300 secs | > 300 secs | > 20 secs | > 1 sec |
| Listeria Monocytogens | > 300 secs | > 300 secs | > 30 secs | > 1 sec |
| Thermotolerant Coliform | > 48 hrs | > 48 hrs | > 30 secs | > 1 sec |

| OXIDIZING AGENT | MEASUREMENT OF OXIDIZING AGENT ORP VALUES |
|--------------------------------------|---|
| | Agent ORP Value Range (mV) |
| Ozone (O ₃) | 700 > 1000 mV |
| Chlorine Dioxide (ClO ₂) | 600 > 1000 mV |
| Iodophors (I ₂) | 400 > 600 mV |
| Hydrogen Peroxide | 300 > 500 mV |
| Sodium Hypochlorite | 250 > 500 mV |

*Oxidation Reduction Potential (ORP) for Disinfection Monitoring, Control and Documentation; University of California, Trevor Suslow, Department of Vegetable Crops, University of California - Davis



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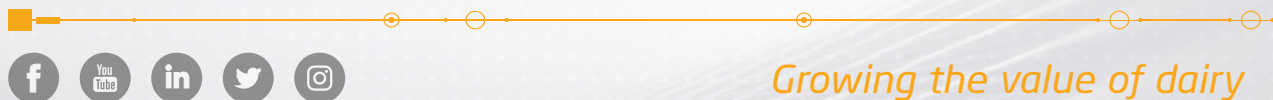
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Growing the value of dairy