

## Application Information:

### Effective Cleaning of Udder Towels For the Prevention of Bovine Mastitis.

Bovine Mastitis occurs when the cow's teats become infected from bacterial growth during the milking process. The National Mastitis Council (NMC) estimates the cost of the disease at \$200 per cow per year in herds without an effective mastitis control program. According to the NMC, mastitis is detected by measuring the somatic cell count of a milk sample with a guideline for normal milk having less than 200,000 cells/ml. Proper pre-milking procedure can minimize teat-end mastitis pathogens from growing and spreading and reduces somatic cell count. The cleaning of the teats prior to milking is the first step in preventing this disease.

Most dairy farmers use reusable cloths for scrubbing and drying the teats in preparation for milking. Sometimes the cloths are washed in hot water and bleach solutions, a procedure that is subject to human error and can shorten the life of the cloth fabric. Miele's professional laundering equipment has been proven as a more effective and cost efficient solution for the laundering of udder cloths and requires no harsh chemicals.

By carefully balancing the wash temperature, processing time, mechanical action and chemical action, Miele washers can quickly and efficiently process even the most difficult loads.

#### Time and Temperature

Miele machines wash at 185° F and hold that temperature for 15 minutes to ensure proper sanitation. Research from Washington State University suggests that hot air drying is not necessary if cloths have been washed at (164°F) with an adequate amount of detergent.

#### Mechanical Action

It is often believed that high mechanical action is required for good cleaning results. However, high mechanical action also means a high likelihood of fabric damage, which can result in product loss. Miele washers provide effective cleaning with a carefully controlled mechanical action, providing excellent soil removal with exceptional fabric care. Plus, Miele's exclusive Honeycomb™ Drum maximizes water efficiency while actually increasing fabric longevity by four times\* when compared to standard laundry drums. Miele washers also offer the highest G-force available allowing for maximum extraction and quick drying.

#### Chemical Action

Selecting the proper detergent is an important step in achieving clean udder towels. Miele offers an extensive line of liquid detergents and can provide application specialist to work with you to select an optimal high efficient detergent.

#### Research

Researchers at a major University in Canada compared the bacterial load and durability of new cloth udder towels laundered in Miele's PW 6065 Plus washer to a residential washer. They concluded that the bacterial load of udder towels washed using the Miele were significantly lower than those washed in the residential machine. It was also noted that the bacterial load of towels washed in the Miele machine stayed consistent through the trial, whereas there was a gradual increase in bacterial load over time in the towels washed in the residential machine.

The results were presented at the 2007 Mastitis Research Workers Conference in Minneapolis and at the 2008 National Mastitis Council annual meeting.

#### Conclusion

The bacterial load of udder towels is drastically reduced using a temperature controlled programmable Miele Professional Washer. The careful mixture of time, temperature, chemical and mechanical action provides the optimum cleaning solution for daily farmers and udder towels are cleaned safely and quickly with repeatable results.

Miele Professional machines are built for rugged, commercial applications, often running 24 hours a day, 7 days a week in the most challenging environments. All Miele Professional washers are soft mounted and can easily be installed requiring no costly concrete footings. This guarantees low vibration which greatly enhances product life.

For Further Information call Miele at  
1-800-991-9380

System Load Size (dry)	
PW 6065	15 lbs/6.5kg
PW 6071	17 lbs/7.5 kg
PW 6101	23 lb / 10 kg
PW 6131	30 lb / 13 kg
PW 6161	36 lb / 16 kg
PW 6201	45 lb / 20 kg
PW 6241	54 lb / 24 kg
PW 6321	70 lb / 32 kg

*\*An independent study conducted by WfK Applied Laundry Research Institute in Krefeld, Germany showed garments washed in the Honeycomb™ Drum to be cleaner and last up to four times longer than garments washed in a traditional drum.*