



better milking advice with



Understand and manage udder health and milk quality problems



Logging and Analyzing Milking Vacuum

Udder health problems are often related to the milking equipment, many times in combination with inadequate milking routines. Notorious are teat-end vacuum fluctuations due to poor quality liners, liner slips or insufficient vacuum capacity. Pathogens reaching the teat-end due to 'backspray' or 'cluster-flooding' is another known cause.

BioControl's VaDia is designed for milking technicians, advisers, veterinarians and other professionals in the dairy industry to deal with these problems. It is the next-generation Milking Time Test (MTT) instrument for testing during milking ('wet test') and is the result of a close cooperation with the International Dairy Federation IDF and Tine, the Norwegian dairy farmers cooperative.

Malfunctioning pulsators also have a big impact on udder health and milk quality. The VaDia can be used for quick and easy Pulsator Testing and Falloff and Attachment Testing (ISO 5707 and 6690).

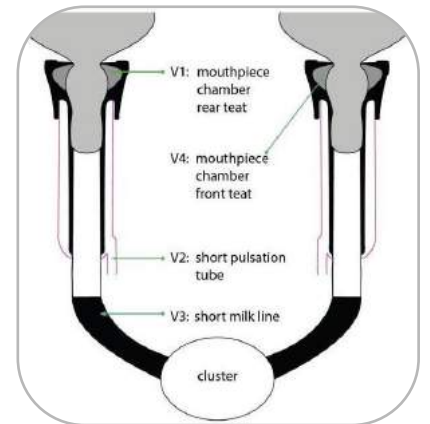
VaDia is battery operated and small and lightweight enough to be taped to a teatcup during milking. VaDia works completely 'stand-alone', which enables the adviser to forget about the actual measurement and concentrate on observing milking routines. The logged data is analyzed after or during milking with VaDia Suite, an easy-to-use PC-tool to view vacuum details and generate summary reports.

A Bluetooth streaming mode is available for real-time, in-parlor diagnostics. This is also handy for advisers, schools and practical farmers who can use VaDia as a training tool for new milkers and students. The Tablet Module for VaDia Suite is adapted for touch screen use, allowing the user to see the data live and perform tests and recordings in the parlor.

VaDia can be used on all brands and types of milking equipment, including robots.



Taped to cluster during milking



4 vacuum logging points



Small, lightweight, 'shell-curved'



4 vacuum channels, indicator light and watertight USB



Alkaline possible if rechargeable empty

- 4 vacuum channels, 200 samples/second/channel, 8 hours logging capacity
- Log-file retrieved through USB
- Bluetooth true time streaming with 200 samples/second/channel
- Rechargeable AA battery, charging from PC-USB
If battery is empty: Alkaline AA can be used for emergency
- VaDia Suite software for analyzing and report making
- Water resistant housing. 90x60x30 mm. 85 grams
- Up to 80 kPa, accuracy ± 0.2 kPa



VaDia Suite PC Program for Analyzing and Report Making

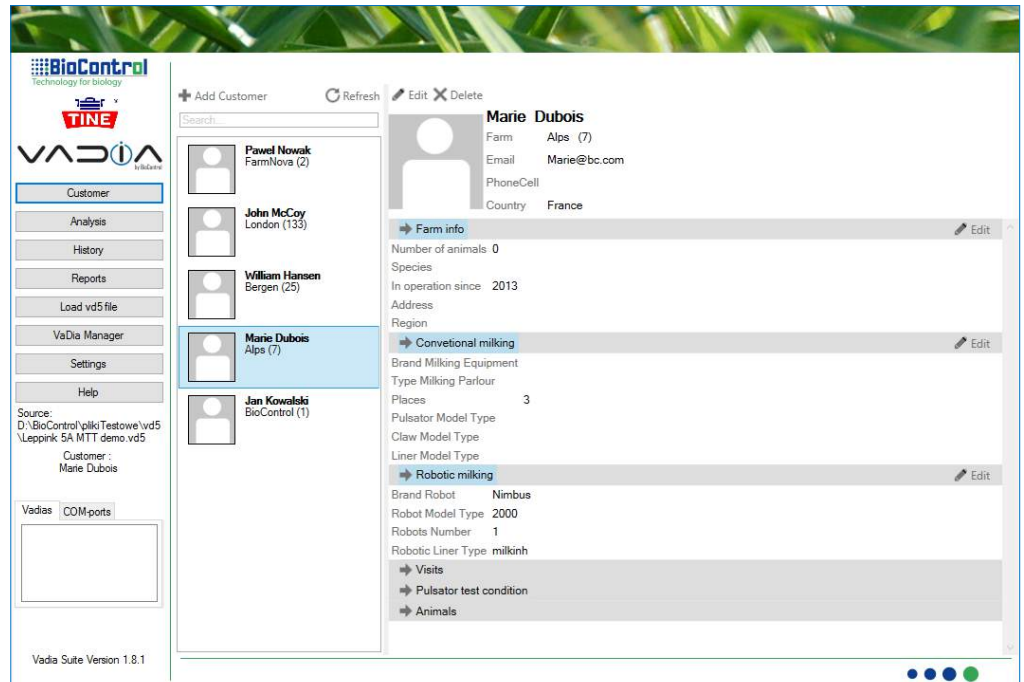
Fully integrated PC-software with modules for:

- Milking Time Testing
- Pulsator Testing (ISO 6690)
- Cluster Falloff and Attachment Testing (ISO 6690)
- Advanced Module with Extra Features and Calculations
- Windows Tablet Module for User Interface Adopted to Touch Screens

Automatic updates when you start up the PC program.

Comprehensive customer database and results from previous tests.

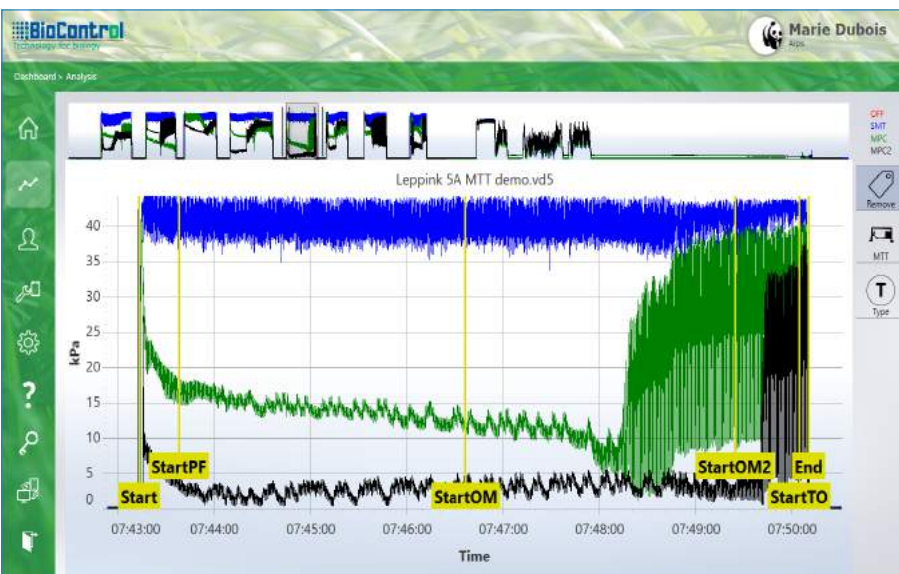
Available in many languages, including Asian languages.



Customization Possibilities

- Custom pulsator conditions
- Advisor contact information and company logo on reports
- Your own recommendations and notes in your reports
- Add the modules you need
- Choose what you show in your reports

Pulsator Nr.	Chan	Rate (bpm)	Ratio	A (%msec)	B (%msec)	C (%msec)	D (%msec)	Vmax (kPa)	Limp	Dip
1	1	59,8	60,2 : 39,8	9,6 96	50,6 508	9,8 98	30,1 302	43,6	0,0%	
1	2	59,8	60,1 : 39,9	9,8 98	50,3 505	9,9 99	30,0 301	43,6	0,0%	
2	1	59,8	60,1 : 39,9	9,6 96	50,5 507	10,0 100	29,9 300	43,6	0,1%	
2	2	59,8	60,3 : 39,7	10,0 100	50,3 505	10,1 101	29,7 298	43,5	0,1%	
3	1	59,8	60,3 : 39,7	9,8 98	50,5 507	10,0 100	29,8 299	43,5	0,9%	
3	2	59,8	61,1 : 38,9	9,9 99	51,2 514	10,0 100	28,9 290	43,5	0,9%	
4	1	59,8	60,3 : 39,7	9,9 99	50,4 506	9,9 99	29,9 300	43,6	0,0%	
4	2	59,8	60,2 : 39,8	9,7 97	50,5 507	9,9 99	29,9 300	43,6	0,0%	
5	1	59,8	60,1 : 39,9	9,8 98	50,3 505	10,0 100	30,0 301	43,7	0,0%	



Reports made as pdf for easy storing and emailing.

Deviations from target values highlighted.

Reports with summary page and chosen information from tests.

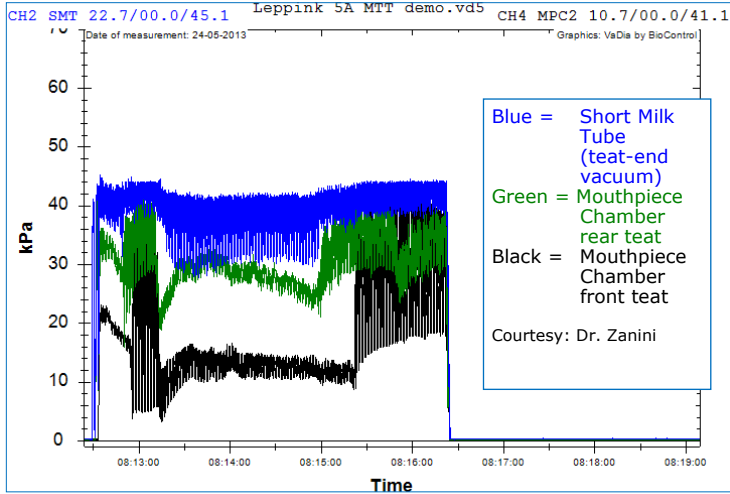
Tablet Module for Windows tablets.

Easy Bluetooth streaming with fast insertion of pulsator number.

For all brands and types of milking equipment, including robots.

Analyze Data Gathered with the VaDia

Analyze Milking Time Test results and get information regarding: preparation time, let down time, peak flow time and vacuum, Mouth Piece Chamber and Short Milk Tube vacuums, overmilking, irregular vacuum fluctuations, etc.



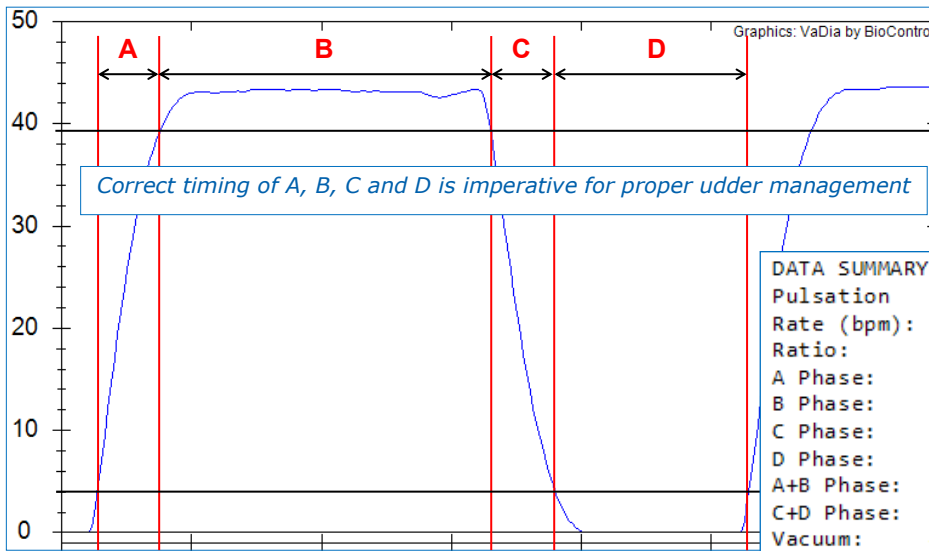
Bimodal milk release, significant overmilking

Registration date: 02/11/2016 09:53
Animal Number: 1458 Milk Yield: 18
Start Preparation: 2016-11-02 09:53:52
Finish Preparation: 2016-11-02 09:54:25
Unit Attachment: 2016-11-02 09:54:31
Preparation time: 00:00:33.799

Notes: My notes to the milking process

Teats: Front Left, Front Right, Rear Left, Rear Right (All selected)
Teat length: Medium
Teat diameter: Thin
Teat shape: Normal
Teat condition: Good
Default name: []

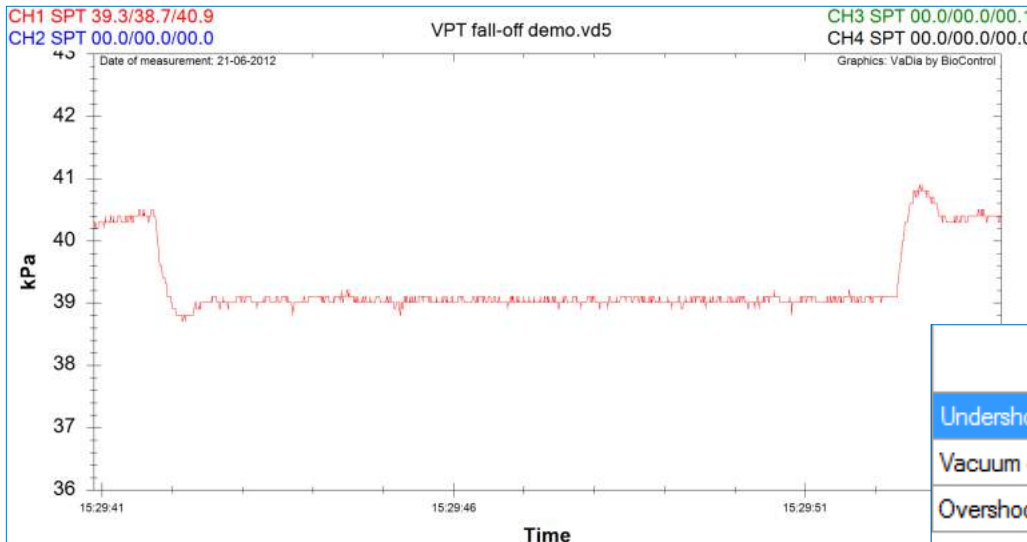
Record information during milking



Compare pulsator and vacuum with customer set targets.

VaDia Suite Pulsator Test Results

DATA SUMMARY	30-5-2013	DATA SUMMARY	30-5-2013
Pulsation		Pulsation	
Rate (bpm):	59,8	Rate (bpm):	59,8
Ratio:	60,2 : 39,8	Ratio:	60,1 : 39,9
A Phase:	9,6% 96	A Phase:	9,7% 97
B Phase:	50,6% 508	B Phase:	50,4% 506
C Phase:	9,8% 98	C Phase:	9,8% 98
D Phase:	30,0% 301	D Phase:	30,1% 302
A+B Phase:	60,2% 604	A+B Phase:	60,1% 603
C+D Phase:	39,8% 399	C+D Phase:	39,9% 400
Vacuum:	43,6	Vacuum:	43,5



Perform the Falloff Test in accordance with the ISO 5707 standard.

	Result kPa	ISO 5707 nom
Undershoot	0.32	< 2 kPa
Vacuum drop	1.33	< 2 kPa
Overshoot	0.55	< 2 kPa

The VaDia gives you...

Easy Milking Time Test

VaDia can be used for vacuum logging during milking to better analyze milking routines and milking equipment in order to improve udder health and milk quality. Bluetooth streaming data enables immediate, in-parlor results.

VaDia works completely 'stand-alone', which enables the advisor to concentrate on observing milking routines. VaDia can be used on all brands and types of milking equipment, including robots.

Get insight into:

- Proper cow preparation (fast milk release)
- Overmilking
- Automatic take-off functioning
- Do these liners fit these teats?
- Vacuum level and fluctuations
- Average teat-end vacuum during peak flow



Fast Pulsator Testing

Correct timing of the A, B, C and D-phases is important to ensure fast and complete milking. Correct vacuum build-up in the pulsator channels is necessary to ensure proper liner opening and closing.

The VaDia Suite PC-software is equipped with a Pulsator Test module for fast and easy pulsator 'dry-testing' according to ISO 6690 and for detailed analysis during milking in the Milking Time Test.

Pulsator testing can be done:

- Online (Bluetooth streaming for immediate result during the test)
- Offline (analyzing all pulsator data after the test)



Cluster Falloff and Attachment Test

The objective of the cluster falloff and attachment test is to test if the vacuum recovery is in accordance with the ISO 6690 standard, which is mandatory in certain countries.

The VaDia Suite contains a module to test if the vacuum recovery is according to the standard.

Get information regarding:

- Undershoot
- Vacuum drop
- Overshoot



VaDia is easily attached to the milking cluster



needle pierces 'straw' in liner



straw in Mouth Piece Chamber



piercing straw in Short Milk Tube



silicon tubes connect straws to VaDia



VaDia on cluster, ready for milking



VaDia on robot



fits every milking cluster



ready for another recording



VaDia to log other vacuum sources

VaDia kit is complete, in robust transport case



- 1 or 2 VaDia's
- USB cable
- Power supply
- Piercing needle
- Roll of silicon tube
- Accessory kit
- Startup guide

