

AMBIC®

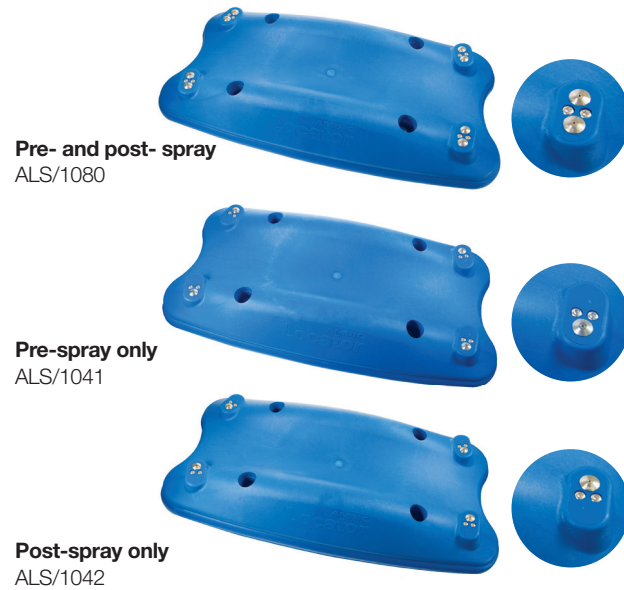
Locate'n'Spray™ Customisation + configuration options

Customisation to suit a farm's individual needs

Each dairy farmer is different in terms of their expectations of an automated teat spray system, so Locate'n'Spray™ has been designed with customisation in mind. At one end of the spectrum there is the option of a focus on cost-saving (Labour reduction, low chemical consumption, time saving) whilst at the other end of the spectrum there is the option to focus on udder health (teat condition, milk quality, cell count reduction).

Locate'n'Spray™ comes with these adjustment features:

- Choice of pre-spray, post-spray and pre- and post-spray regimes
- 4 or 8 nozzle technology
- Adjustable spray duration to regulate chemical consumption
- Stand-alone or system integration options to suit range of milking systems



...about Ambic

Ambic Equipment is a world leading specialist in the development and production of a comprehensive range of dairy hygiene and livestock health management products which are sold around the world. In particular, Ambic is the world's leading supplier of mastitis prevention and detection equipment. Its leading market position has been built up as a result of over thirty years of dedication to research

and development, innovative product design, quality manufacture and superb customer service.

Goods are sold subject to Ambic's current Terms and Conditions of Sale, which are available on request or at www.ambic.co.uk/legal.html

* Evaluation of Teat Coverage with Ambic Locate'n'Spray™ Post Milking Teat Disinfectant System using six different spray duration settings. Pocknee, B.R., Ohnstad, I., The Dairy Group, August 2013.

** Effectiveness of Teat Coverage with post Milking Teat Disinfectant using a Vacuum Operated Teat Spray System. Pocknee, B.R., Ohnstad, I., NMC, August 2014.

Cert No. 14472
ISO9001
ISO14001



AMBIC®

Locate'n'Spray™



Automated On-Platform Teat Spray System

SCIENTIFICALLY PROVEN TO GIVE SUPERIOR TEAT COVERAGE

leading best practice in livestock health management



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Developed by the market leader in teat spraying

As a pioneer and international market leader in the teat spraying market Ambic has many years of experience in the field of teat spraying and udder health; it knows what is required of a teat spray system to ensure effective udder health and optimum teat condition.

Targeted research and development

Ambic has combined this wealth of knowledge with intensive research, working with industry experts to devise a 'state of the art', fully automated teat spray system for rotary milking systems which is capable of achieving optimum teat coverage whilst ensuring economic chemical consumption levels to achieve the ultimate in teat spray automation.

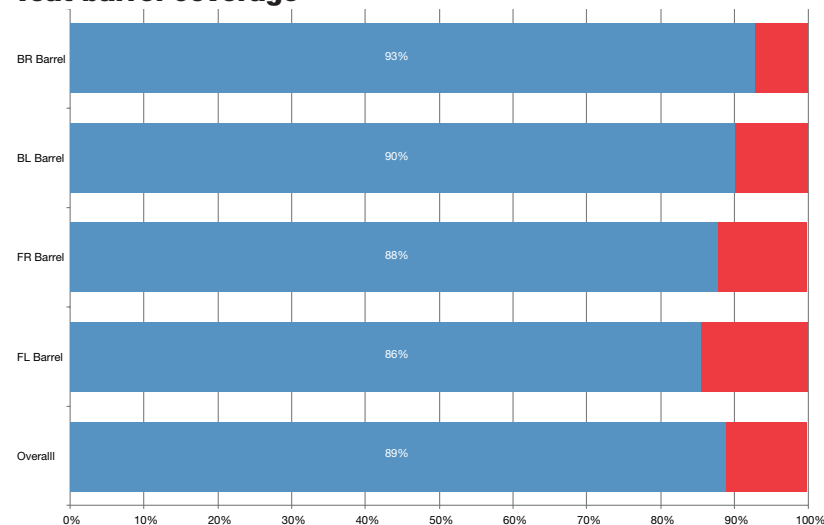
The research work undertaken includes many hours spent on dairy farms analysing the needs of cows milked through rotary milking systems, including plotting the position of the teats of several thousand dairy cows in order to understand all the variables that an automated teat spray system must be able to accommodate.

Independent trials have confirmed teat end and barrel coverage rates in the range of 90%, which has been shown to be significantly higher than manual teat spraying.* **

Locate'n'Spray™ Validation trials

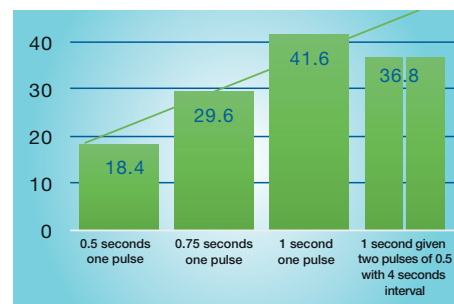
undertaken by The Dairy Group on one of the first Locate'n'Spray™ systems

Teat barrel coverage



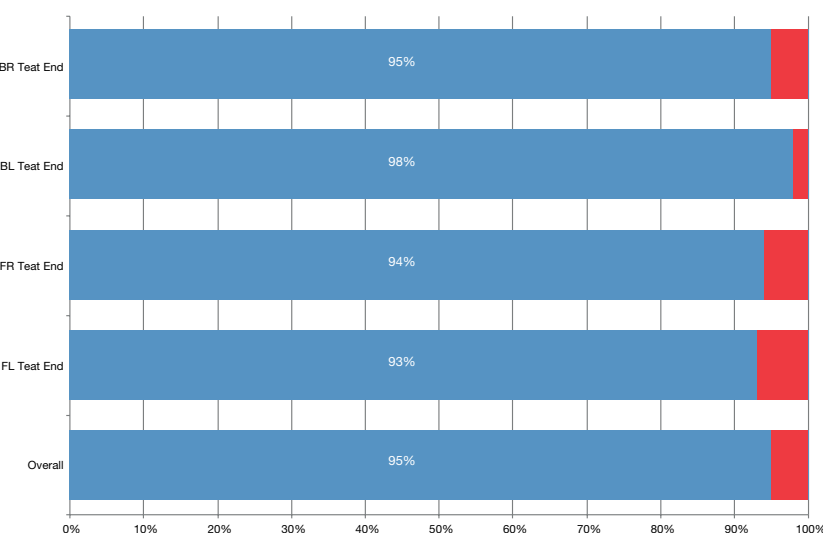
Average barrel coverage results for test farm between December 2015 and January 2016 showing overall average barrel coverage of 89%. Spray duration set at 1 x 0.9 seconds for pre-spray and 2 x 0.45 seconds for post-spray.

Chemical consumption vs Spray duration



Chemical consumption varied on test farm between minimum of 18.4ml per cow at spray duration of 0.5 seconds to a maximum of 41.6 ml per cow with a spray duration of 1.0 seconds duration.

Teat end coverage results

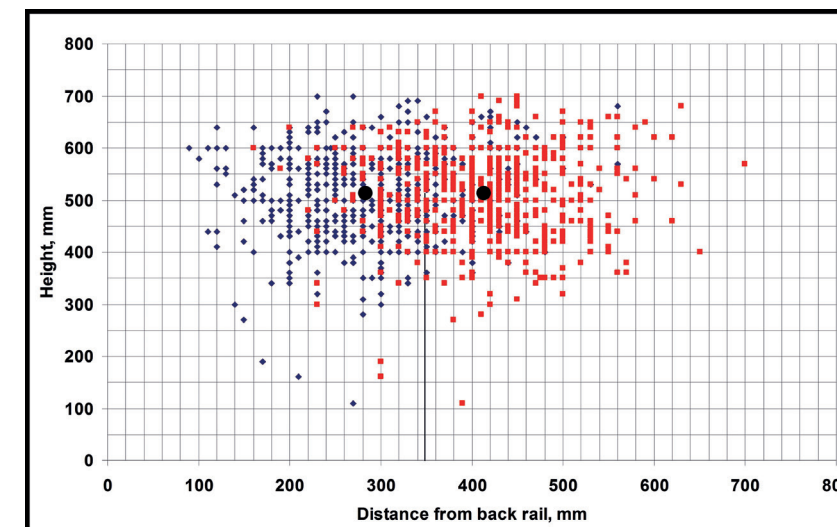


Average teat end hit rate results for test farm between December 2015 and January 2016 showing overall average teat end coverage of 95%. Spray duration set at 1 x 0.9 seconds for pre-spray and 2 x 0.45 seconds for post-spray.

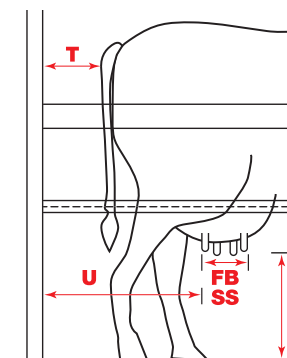
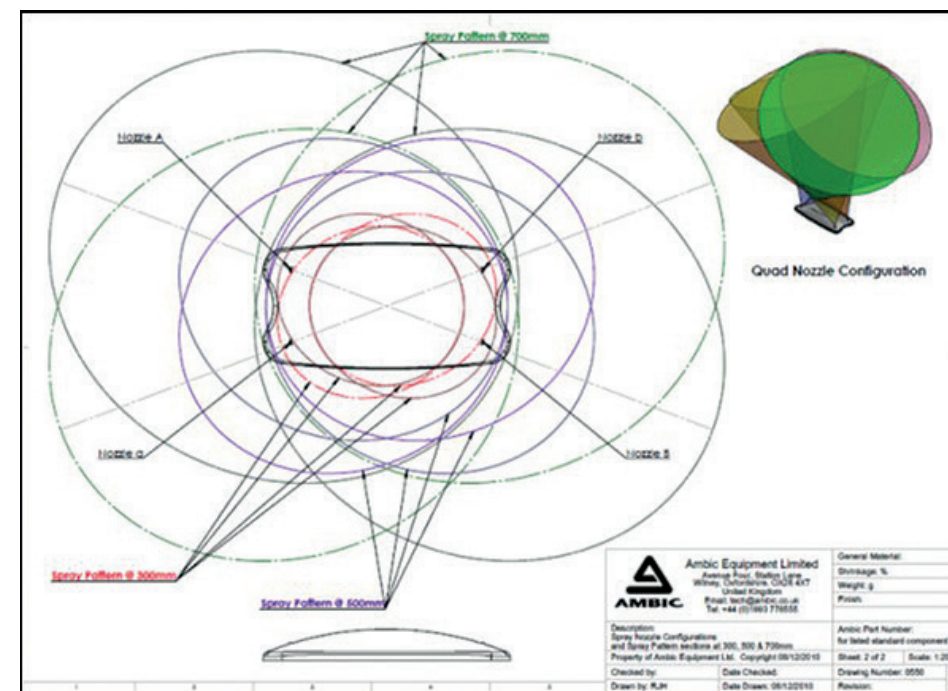
It starts with good positioning

Locate'n'Spray™ builds on the successful development of Ambic's Locator™ as an effective positioning device; it encourages the cow to stand squarely in the milking bail and present her teats well to facilitate good cluster attachment, good cluster alignment - and good teat presentation for spraying.

Locate'n'Spray™ works on the premise that the best time to sanitise a cow's teats is immediately after the cluster has been removed and the sphincter is still open. This also has the advantage that the cow is stationary - it is much harder to hit a moving target as confirmed by trials with exit race sprayers.



Results of the analysis of the distribution of teat positions (side view) undertaken to determine the design of the Locate'n'Spray™ spray module.



Measurements taken to plot the spread of teat positions which the Locate'n'Spray™ system needs to reach to achieve effective spray coverage.

Cows' teats come in all shapes and sizes

Devising a reliable spray system for rotary milking systems began with determining the position of the teats of a number of different herds of cows. A variety of nozzle positions, nozzle designs and nozzle angles were assessed. For example, the rear nozzles are at a different angle to the front nozzles. The angle and position of the pre-spray nozzles are also different from those of the post-spray nozzles. It was also established that more spray nozzles spraying for a shorter duration achieved far superior results than fewer nozzles spraying for longer.

Scientifically validated

Ambic has worked with a range of experts on the development of Locate'n'Spray™ and has published various papers and posters on its research findings.

Professor Paul Miller, formerly of the Silsoe Research Institute, Professor Eric Hillerton, formerly of Dairy NZ and the Institute of Animal Health as well as Ian Ohnstad of The Dairy Group, a firm of respected UK dairy consultants have validated farm trials and run independent trials to confirm the results achieved over a range of teat spraying variables.