

Nuevas tecnologías para el manejo de hatos lecheros

Desde su fundación en 1976, **SCR** se dedica al desarrollo y producción de sistemas de ordeño. En los últimos 10 años pasó a ser la compañía líder del mercado lácteo en medición de leche y detección de la actividad de la vaca, por medio de un rótulo inteligente.

SCR es una compañía israelí que hoy cuenta con más de 160 empleados. Su actividad principal se realiza en el mercado mundial, pero Israel es el foco de sus actividades y desarrollos. **SCR** vende a otras compañías en el mundo sistemas electrónicos y sistemas computarizados que se combinan en soluciones integrales para el mercado lácteo mundial.

SCR ofrece una amplia gama de soluciones integrales para el ordeño y la gestión de hatos, no sólo para el ganado vacuno sino también para el ganado caprino y ovino, que incluye la medición de la leche, el reconocimiento automático de los animales, la recopilación de datos y un programa que brinda al productor caprino una solución integral eficiente para la gestión de su rebaño. El reconocimiento del celo es uno de los factores claves dentro del manejo de hatos. **HEATIME™** es un sistema avanzado y de bajo costo para el reconocimiento de los celos en el ganado. El uso de **HEATIME™** reduce al mínimo los celos no vistos y, en consecuencia, la reducción en los días abiertos.

El reconocimiento de la actividad de la vaca se basa en una tecnología exclusiva de **SCR**, basada en un sensor inteligente en un collar sobre el cuello del animal, que mide la actividad diaria del animal. Las mediciones se acumulan en compartimentos de dos horas cada uno, que brindan una imagen clara y efectiva del comportamiento de la vaca durante todo el día; de esa manera proporcionan al agricultor información sobre el momento óptimo para la inseminación. Este sistema inteligente elimina las posibilidades de error de otros sistemas.

En 2006, **SCR** empezó a vender **HR-TAG™**, un rótulo que mide el tiempo de rumia de la vaca, incluidos los datos sobre su actividad. La rumia se mide a través de un micrófono especial que reconoce los movimientos mandibulares del animal. Los datos se envían a un procesador que reconoce los sonidos y calcula el tiempo de rumia de cada vaca. La detección continua de la rumia brinda la posibilidad de detectar problemas metabólicos de

los animales. Esta tecnología de medición automática de la rumia de manera continua durante toda la vida del animal fue lograda por primera vez por **SCR**.

La medición de la leche se realiza por medio de rayos infrarrojos, una tecnología exclusiva de **SCR** que permite una medición rápida y exacta, sin partes móviles, para llegar a calcular las planillas y gráficos de producción en cualquier momento del ordeño.

SCR crea, produce y comercializa sistemas para la gestión y automatización del ordeño de hatos, productos de excelente calidad que de esta manera ofrecen al agricultor soluciones inteligentes y económicas para la gestión del ganado.

DATA FLOW™ es un sistema de gestión de hatos que incluye modelos informáticos de avanzada.

DATA FLOW™ controla el proceso de ordeño en tiempo real y recopila en su sistema datos que incluyen la producción de leche, la información veterinaria, la actividad de los animales, la detección de celos, etc. Los datos son procesados por un programa que brinda la información en forma de planillas o gráficos, ya sea en el momento del ordeño o para analizar los datos para la toma de decisiones diarias sobre la gestión del hato.

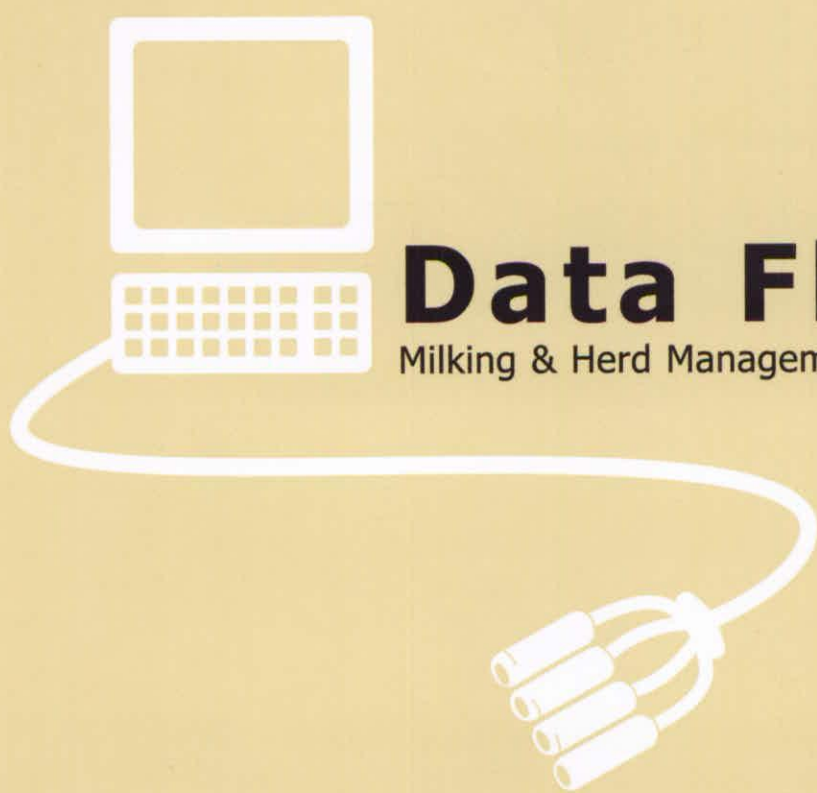
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Data Flow

Milking & Herd Management System



Milking & Herd Management System

Managing a growing number of high yield dairy cows, with increasing demands for higher milk quality and lower margins requires powerful tools.

Data Flow - SCR's solution for milking and herd management provides the herd manager as well as the operator in the milking pit parlor with a set of tools designed to help with daily tasks.

Data Flow comprises of hardware and software, which controls the whole milking process and automatically collects and process data on each cow in the herd.

SCR's philosophy is keeping the user interface in the pit as simple as possible avoiding complicated panels while delivering the right message at the right time. The system integrates SCR Tags for Cow ID and heat detection or RFID passive ear tags for ID only.

The milking point equipment is the MC²⁰⁰ with the addition of the ID Unit and network card. In this way the farmer can expand easily from a standalone solution to a complete management system.

ED200 - Milking Controller - **NEW**

- Enlarged Display
- Auxiliary outputs
- Suitable for panel installation

Or

P200 - Pulsator & Controller

FFS30/ FF30C Free Flow Sensor

- Small
- Accurate
- Zero maintenance
- FFS30C - includes conductivity sensor - **NEW**



SCR Collar Tags

- Highly accurate Heat detection with 2 hr resolution
- Easy to mount
- 8 year lifespan
- Optional Hi-Tag - including rumination monitoring - **NEW**





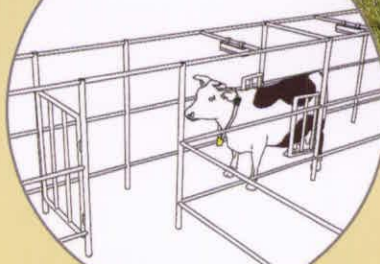
Traffic light side monitor

- Efficient tool for indication of the milking status of each side



Active Message Board

- Real time alerts in big and clear letters



Sorting Gate

- 3 way sorting
- Automatic and manual lists
- Option for walk-through scale



Data Terminal

- Queries on cows during milking
- Elaborated information
- Reported events

Main features:

Online Control and Support of the Milking Process - including sophisticated messaging system; alerts of exceptional events; automatic detection of abnormal milk and mastitis.

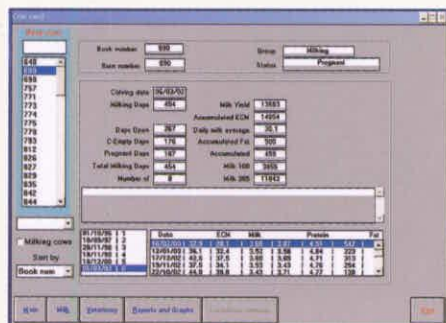
Milking & Herd Management - including Cow Card, online milking monitoring, milk production, veterinarian treatments, breeding and more all in one database with working lists, predefined reports & graphs and a sophisticated report wizard to create customized graphs and reports.

Automatic Heat Detection based on the most advanced tag in the market with unique motion sensor time based data and IR communication.

RFID Ear Tags Option

Export/Import to External Software

SMS messages - NEW



- Simple user interface - with a single pushbutton for the operator.
- Online and timed message system.
- Accurate ID and heat detection in a unique single neck tag with infrared.
- New option Hi-Tag - a tag with rumination monitoring as well as heat detection.
- Windows based software with high flexibility to match the farmer needs.
- Suitable for most parlour layouts. (Herringbone / Parallel, Swing Over, Rotary, Tandem)



MC²⁰⁰

Advanced Milking Controller



SCR Engineers Ltd

MC²⁰⁰

Advanced Milking Controller



TAKE-OFF CYLINDER

P580 DOUBLE VALVE



P200 PULSATOR & CONTROLLER



PPB30 PUSHBUTTON



FFS30 MILK FLOW SENSOR



MV30 MILK VALVE



MILK PIPE

- Innovative approach
- A complete solution for controlling a single stand
- Ideal for upgrading existing parlours with a small investment

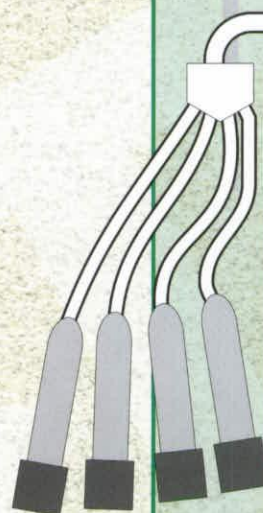
Features:

- Accurate milk yield display.
- Automatic detaching or pulsation arrest.
- Flow controlled pulsation.
- Easy to operate with a single pneumatic pushbutton (vacuum).
- Alerts of kick-off, low milk.
- Easy configuration using a Palm.
- Simple installation in existing parlour.
- Ready for upgrade to a complete management system.

The MC²⁰⁰ Units:

- FFS30 Free-Flow optic Sensor - matchbox size, accurate, highly reliable with no moving parts & no maintenance.
- P200 Pulsator & Controller with a display - durable and reliable with only 2 moving parts.
- PPB30 Pushbutton - simple operation with a single durable pushbutton.
- P580 Double Valve - based on the pulsator design with common parts.
- MV30 Milk Valve - advanced design.

- ✓ Reduces up to 20% of Milking Time
- ✓ Eliminates Over-Milking and Teat Irritation
- ✓ Improves Operator's Welfare
- ✓ First Step to a Complete Management System



ED200N

Milking Controller



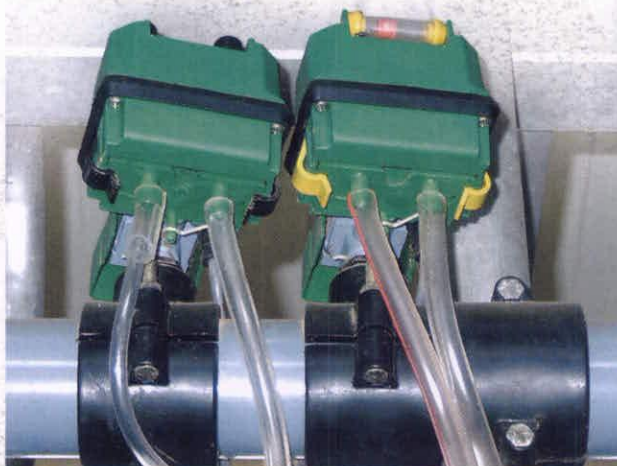
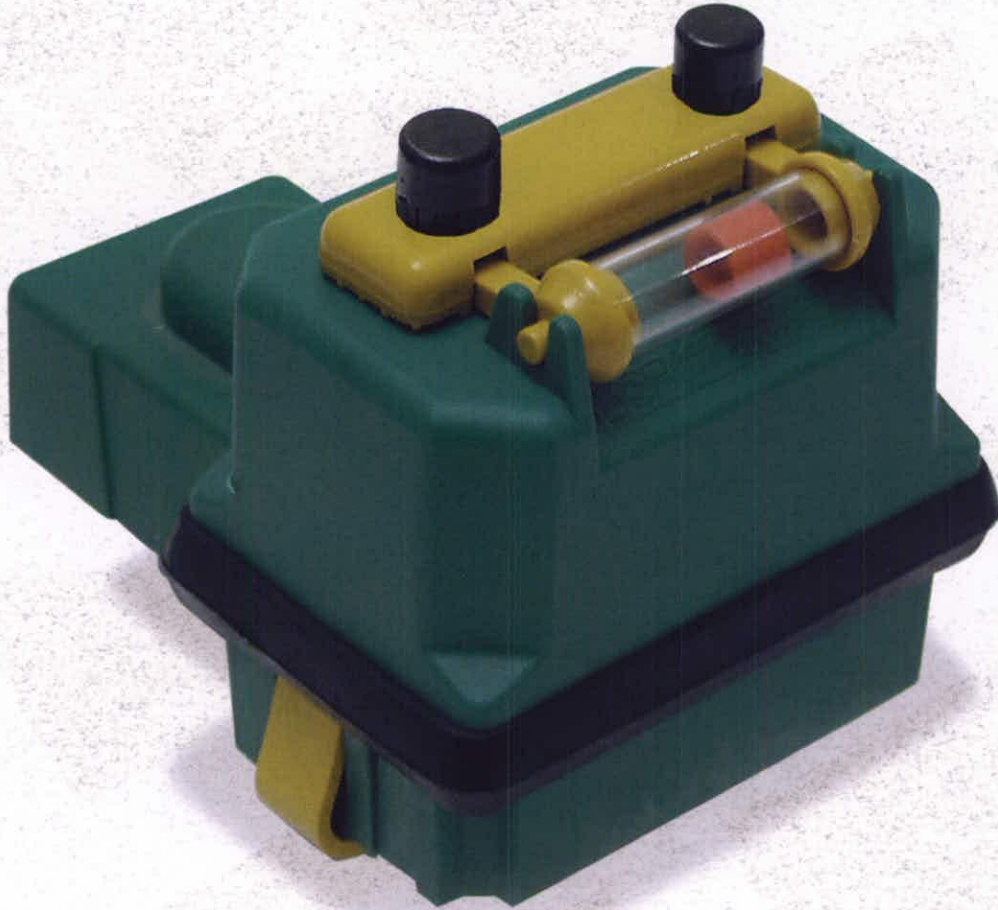
ED200N Milking Controller

- Very large and bright display with 1" digits
- Ready for Data-Flow communication
- Configuration using a Palm
- Simple installation on a panel



Pulsation

Electronic Pulsators



SCR's pulsators have gained their users appreciation for many years in tens of thousands milking points.

The pulsators have a unique combination of features, which put them in the front line of pulsation solutions.

Mechanical Design

Direct Action:

The pulsator is based on "direct action" technology, which has the following benefits:

- Wide orifices for reliable operation even in very dusty conditions or poor maintenance.
- Only two moving parts, no membranes or small parts to deal with.

Pulse Monitor:

SCR's pulsator is equipped with a unique simple and clever (patent protected) pneumatic monitor, which allows the operator to visually monitor the pulsation. The monitor checks the complete vacuum circuit and gives indication not only of problems on the pulsator itself but of any vacuum faults such as disconnected pulsation tube or a broken liner.

Quick Coupling:

The pulsator is connected to the vacuum line with a stall cock that enables easy assembly or replacement during milking. Maintenance and cleaning are simple - no tools required.

Exhaust /ventilation - individual filters or central free-air pipe.

Electronics

SCR's pulsators are all (except of the P500) microprocessor controlled with quartz clocks. The P700 can be programmed with up to 16 different pulsation programs including teat stimulation.

Custom programs are available as well.

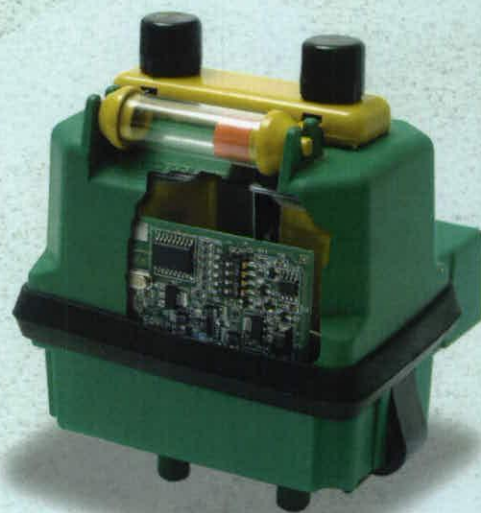
Pneumatic control: For easy integration in parlour the pulsator includes a vacuum controlled switch, which enables control of the pulsator with vacuum command.

Maintenance

Due to the direct action method and simple disconnection and disassembly, maintenance becomes a very simple task. No tools and no special expertise required. A cleaning every 3-month and an annual replacement of the rubber covers of the pulsator's pistons will ensure trouble free and accurate operation for many years.

Specification

- Operating Voltage: 12 or 24 V AC/DC
- Dimensions (HxWxD): 96x110x76 mm
- Power Consumption: 10.8W continuous
- Weight: 730 grams



Models:

P 500

Pulsator unit (solenoids only) for central pulsation system (DC voltage only).

P 700

Individual Programmable Pulsator:

- 16 programs
- Dipswitch setting
- Teat stimulation

Heatime™

Standalone Automatic Heat Detection



SCR Engineers Ltd

Heatime™ Standalone Automatic Heat Detection

Reliable detection of estrus (heat) is a key factor for successful breeding when artificial insemination is used. Research showed that the estrus period in dairy cows can sometimes last for less than 8 hours, and a significant share of the heats occur over night.

Heatime™ is an advanced, compact and cost-effective system for detection of estrus in cows and buffalo herds.

The system is highly accurate (over 90% accuracy) and designed for dairy herds of up to 600 heads.

Using **Heatime™** enables to improve fertility rates & calving cycles while reducing the number of Days Open & semen expenses.

The detection is based on SCR's proprietary **ID & Activity technology**. This technology includes a unique collar tag attached to the cow's neck with a special sensor that measures the cow's activity on a time axis and not just the cow's steps between milkings. The activity is recorded in 2 hour segments in order to create an accurate profile of the cow's behavior and provide the farmer with information of the best time for insemination. Sophisticated software eliminates the false alarms that are common in other systems.

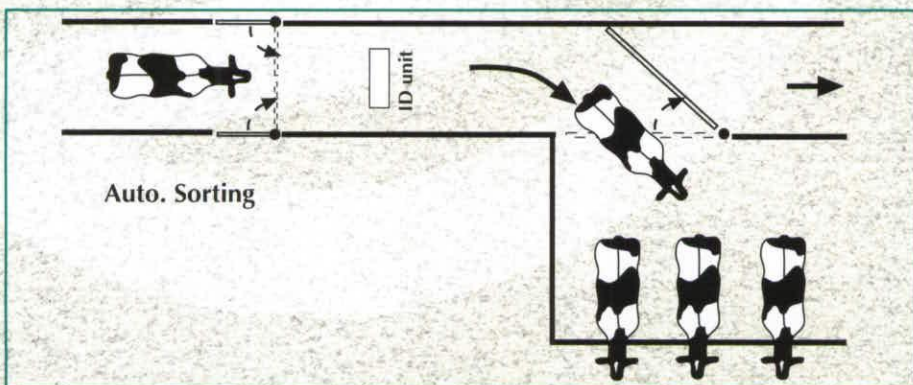
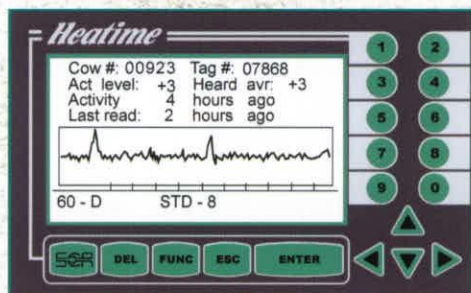
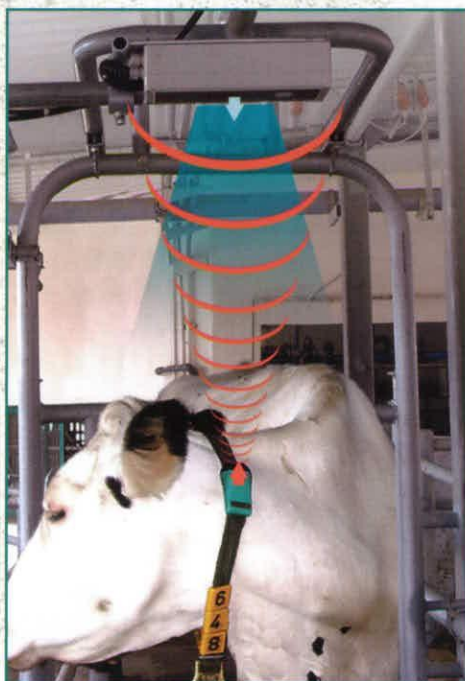
Heatime enables accurate detection in all conditions including crowded burns, slippery floors, extreme heat or cold weather and grazing cows.

An **automatic sorting gate** is optional for saving additional time and labor. The system is simple to install and doesn't require any maintenance.

The **Heatime™** system includes:

- a small Control Box with a simple interface and graphic display.
- a compact ID Unit (optional up to 4) for installation in the parlor or outdoors on any farm.
- SCR neck tags.
- optional Automatic Sorting.

Menus are currently available in: English, Dutch, German, Italian, Spanish, French, Slovenian, Danish, Turkish and Hebrew. Other languages can be added as required



Heatime™

The perfect solution for efficient A.I.:

- ✓ Highly accurate estrus detection.
- ✓ No need for visual observations, tail painting etc.
- ✓ Improves fertility rates.
- ✓ Less "days open".
- ✓ Reduces semen expenses.



System components

Features:

- Integrated control and display unit - no need for PC.
- Infrared communication for reliable data transfer, and simple installation of the ID-Units (readers).
- Durable collar tag with very long lifespan (8 years and more).
- User-friendly interface including graphic display.
- Storage of cow's history for up to 60 days.
- Simple solution for estrus detection in heifers
- Option for automatic sorting.



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