



Thinking solutions.

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**reflex**

Thinking solutions.

# ISH Innovations



ISH 2013

# Rediscover Reflex at the ISH

The ISH is the first port of call for anyone interested in the future of our industry. As the world's leading trade fair for building services, energy and air-conditioning technology, it is the ideal event to showcase our latest developments. The ISH 2013 marks quite a unique milestone for Reflex, as the innovations that we are launching at this year's trade fair form part of a comprehensive process affecting our entire company.

We have analyzed our product range, made use of our good contacts in the market and systematically scrutinized our work from their point of view: How can we make you even more successful with our products and services? We have summarized the results in our new corporate mission statement that we are launching at the ISH 2013:



Thinking solutions.

We have set ourselves the aim of opening up new prospects for you. With technical innovations in many proven product lines. With well thought-out solutions from the entire breadth of our product range. And with a range of services offering you complete support from the initial idea through to the final solutions.

Rediscover Reflex! We promise you, it will be worthwhile. We have summarized the key innovations in this brochure. Get in touch with us if you would like to know more about „Thinking solutions from Reflex!“



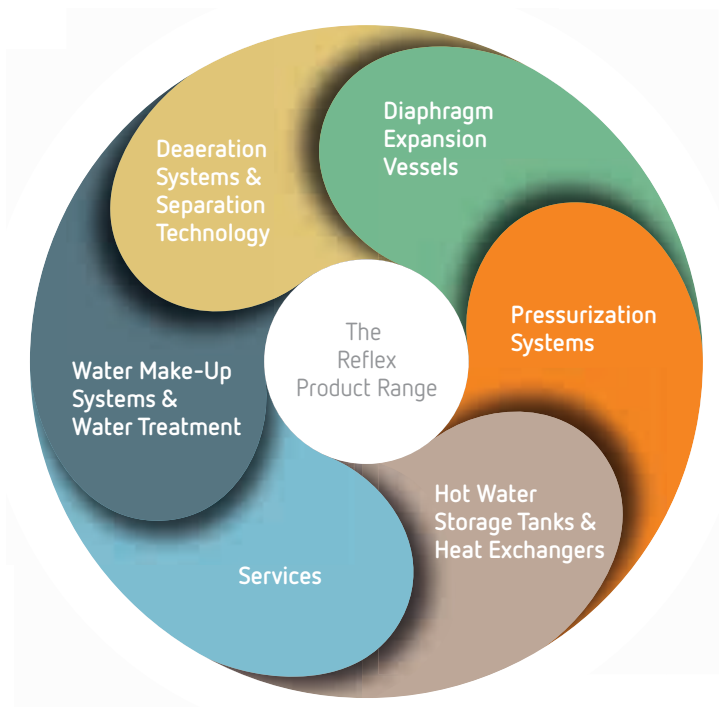
Volker Mauel  
Managing Director  
Reflex Winkelmann GmbH

# 2013!

## We make sure that everything fits

The redesigned range of Reflex services aims to make the implementation of well thought-out solutions even simpler for you. Our products are geared specifically to support the work usually involved in the design and planning of a plant or system.

Reflex products only reveal their true strengths when they are combined to create high-performance assemblies. It is precisely here that Reflex, with its in-depth technical knowledge, many years of practical experience and perfectly coordinated technology, ensures that truly networked solutions emerge.



The results are building services systems that simply do more. Rely on „Thinking solutions from Reflex“ and ensure that you meet all the efficiency and operational safety demands placed on heating, cooling and hot water supply systems today and in the future.

## Contents

Reflex Control – the new benchmark in system control	page 4
Tailored dynamic pressure maintenance: Reflexomat and Variomat	page 6
Professional degassing with the new Servitec	page 8
Fillcontrol Auto – for complete control of make-up water	page 9
Getting to the heart of efficiency with the new Reflex storage water heaters	page 10
The very best advice at each stage of your project with Reflex Services	page 12

# Reflex Control – the new bench

Operate Reflex pressurization stations, water make-up systems and degassing technology from now with a single, innovative control scheme. Reflex Control ensures maximum operational convenience and significantly simplifies the installation, operation and maintenance of complex systems.



There are two models of control unit available with different control panels. The Control Touch has a touch-sensitive screen with plain text menu, operating instructions for the respective system and integrated help texts. The Control Basic key-based alternative is also available for smaller ranges and offers the same structural configuration with slightly reduced functionality.

Reflex Control only reveals its true strength when several system components are connected to each other, with networking seamlessly provided by standardized control routines. For example, you can connect and perfectly coordinate two control units to each other in parallel or up to 10 pressurization stations in a master-slave configuration. Additional I/O and bus modules are available with the requisite interfaces for integrating Control units into building management systems.



Reflex Control is used with these product ranges



Reflexomat



Variomat



Variomat Giga

# mark in system control

## Control Touch at a glance

- Intuitive operation by touch display
- Simply laid-out plain text menu with operating instructions and help texts
- Integrated control routines for pressure, degassing and water make-up
- Permanent display of the most important operating statuses
- Intelligent Plug & Play operational management
- Evaluation and storage of the most important operational data
- Extensive interfaces (including: 1 x potential-free digital contact water meter, 2 x analog parameterizable outputs, 2 x RS 485, 1 x TTL, plugs for Bluetooth, HMS networks and KNX module as well as an SD card)
- Master-slave operation and network operation optionally available



Control Touch control panel

## Control Basic at a glance

Control Basic is used with smaller Reflexomat and Variomat models and with Fillcontrol water make-up systems and Servitec degassing stations. Operation is key-based with this system. The control unit features a 2-line LCD-display. It has a collective error signal and an RS 485 interface as well as digital contact water meter. The structural configuration of the unit corresponds otherwise to the Touch version and the options for network switching and integration into building management systems are identical.



Control Basic control panel



# Tailored dynamic pressure maint Reflexomat und Variomat



Your decision simply has to be for the latest generation of Reflex pressurization stations when maximum performance, the ultimate in precision and absolutely reliable automatic operation are called for.

Both pressurization stations have been redesigned from scratch to provide you with a range of diverse benefits in practice.

- Space-saving, free-standing system\*
- Attractive, modular protective housing for the entire control electronics
- Ergonomic positioning of the control panel
- Well thought-out wiring scheme for ease of installation
- Clearly arranged operational elements
- Use of the innovative Reflex Control concept across all product ranges (see page 4)
- Bundled cabling between tank and control unit
- Optimized cabling to the oil measuring capsule in the base of the expansion vessel



\* The control unit is positioned directly on the tank of the Reflexomat Compact.

# enance:

## Reflexomat at a glance

- Compressor-controlled pressurization station for heating and cooling water systems
- Available with 1 or 2 compressors
- Extremely precise pressure maintenance with an accuracy of  $\pm 0.1$  bar
- Excellent operational versatility
- Also available as a Reflexomat Compact



## Variomat at a glance

- Combined unit for pump-controlled pressure maintenance using 1 or 2 pumps
- Integrated atmospheric degassing
- Simple make-up with water directly into the unpressurized expansion vessel
- Also available as a Variomat Giga with a tank volume of up to 20,000 liters (on request)
- Patented valve switch for fully automatic hydraulic balancing



For more information visit [www.reflex.de](http://www.reflex.de)  
or refer to the „Pressurization Stations“  
product brochure



# Professional degassing with the new Servitec



The latest generation of Servitec degassing systems stands out on account of its outstanding performance and ease of operation. At the same time, using the parent Reflex Control concept ensures that Servitec can still be seamlessly integrated into Reflex networked systems.

- Patented spray-tube degassing for maximum efficiency
- Available in 5 capacities plus non-standard systems for convenient degassing of challenging apartment buildings through to industrial applications
- Servitec 60 also available as a model suitable for use with anti-freeze
- Intuitive key-based operation of the Reflex Control Basic in 16 languages (see page 5)
- Degassing of system water by
  - continuous degassing at start-up
  - regular degassing in normal operation
  - automatic degassing as a function of the gas content (optional)
- Patented valve switch for fully automatic hydraulic balancing
- Full networking options with pressure maintenance and addition of make-up water including make-up degassing using the Reflex Control concept



# Fillcontrol Auto – for complete control of make-up water



Reflex offers you a make-up solution guaranteeing maximum independence with Fillcontrol Auto. The pump-based Fillcontrol Auto reveals its strengths wherever conventional systems cannot be used due to the conditions on site.

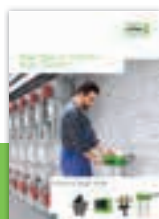
- Add make-up water regardless of the fresh water pressure
- No recurring inspection obligations for system separation fittings thanks to the use of a system separation vessel
- Direct connection is possible to the potable water system
- Model available for make-up using water/anti-freeze mixtures

The key-based Reflex Control Basic with a 2-line LCD display (see page 5) is used with all Reflex Fillcontrol make-up systems. The control scheme enables make-up water to be added simply and integrated perfectly into systems with Reflexomat or Variomat pressurization stations and Servitec degassing stations.



## Fillcontrol Auto im Überblick

- Calculation of the filling pressure from the system's minimum operating pressure
- Leak detection over run time and cycles; reliable signaling of leaks and automatic interruption of make-up
- Monitoring of filling by means of set filling time or filling pressure; filling stops when the set level is reached
- Faults signaled by display and potential-free output
- Standard operation dependent on pressure and level: pressure-dependent operation by integral control and level-dependent operation by



For more information visit [www.reflex.de](http://www.reflex.de) or refer to the „Make-up Systems & Water Heating Technology“ product brochure

# Getting to the heart of efficiency

## Reflex storage water heaters



Storage water heaters\* make a decisive contribution to the efficiency of modern heating, hot water, industrial and district heating systems, as they permit demand-led heat production and efficient heat generation to be decoupled - without compromising on comfort or responsiveness.

The new Reflex storage water heaters\* have been designed specifically to meet the requirements of their particular applications and, thanks to their well thought-out construction and the uncompromising quality of the materials used, they provide a perfect framework for the very latest system designs.



### Storatherm Aqua Heat Pump\*

Heat pumps work efficiently especially with very low flow temperatures. Storatherm Aqua heat pumps feature an ultra-large heat exchanger to use its energy efficiently to warm potable water. With foil-clad PU thermal insulation, this unit meets the most exacting requirements with regard to energy efficiency and comfort.

The Storatherm Aqua Heat Pump storage tank is also available with a second heat exchanger for connection to a solar thermal system or other heat source.

\* Please note that Reflex storage water heaters are not available in all countries.

# with the new

## Storatherm Aqua Load\*

The Storatherm Aqua Load has been specifically designed for use within storage/charging systems where it provides for extremely good performance and versatility with relatively small storage volumes when used with Reflex Longtherm heat exchangers. Storatherm Aqua Load units are protected as standard by PU thermal insulation and white foil cladding.



## Storatherm Combi\*

The Storatherm Combi is the state of the art embodiment of a hygienic storage vessel. It uses the energy present in the storage vessel to heat potable water passing through a large-volume stainless steel corrugated pipe. With correspondingly high thermal potential, the storage vessel acts as an instantaneous water heater providing reliable, efficient and clean hot water without the need for additional floor space.

Heat is fed into the storage vessel by one or two smooth tube heat exchangers, also enabling a renewable heat source to be integrated. The Storatherm Combi features PU foam thermal insulation with white foil cladding.



For more information visit [www.reflex.de](http://www.reflex.de) or refer to the „Storage Water Heaters & Heat Exchangers“ product brochure

# The very best advice at each sta with Reflex Services

Everything fits seamlessly with Reflex when it comes to well thought-out solutions. This applies both to Reflex product divisions as well as to our service provision. You can rely on us - from the initial idea through to the very last detail!



## The direct line to: Our service numbers

How can we help you? Please contact the relevant service number to ensure that you find the right person to deal with your inquiry as quickly as possible.

### Technical hot line

For all questions about our products  
Monday to Friday from 8.00 a.m. to 4.30 p.m.  
[+49 2382 7069-9546](tel:+49238270699546)

### Reflex Customer Service and Spare Parts Service

To commission repairs, maintenance and commissioning and to order spare parts  
Monday to Friday from 8.00 a.m. to 4.30 p.m.  
[+49 2382 7069-9505](tel:+49238270699505)

### Central number

For general inquiries, to order brochures, contact a business partner or responsible field sales engineer  
Monday to Friday from 8.00 a.m. to 4.30 p.m.  
[+49 2382 7069-0](tel:+49238270690)



## Made-to-measure design: With the Reflex Pro calculation program

Take the easiest route to correct design and sizing: Reflex Pro is the proven, continuously developed software solution you can use to quickly and simply achieve precise results. The software is available in three versions and we can also provide you with a CAD library of our entire product range for integration into your construction programs.

Visit [www.reflex.de/pro](http://www.reflex.de/pro) for further information and the option of downloading free of charge.

# ge of your project



## Our field sales team – always on the road for you

Our Reflex field sales team is your first point of contact when you need expert advice on site, from recommending relevant products to design and support in the preparation of a tender. You can rely on our experts!

Call our central phone number or check out [www.reflex.de](http://www.reflex.de) under Contact Us to find the field sales representative responsible for your region.



## Our product literature – designed to be used

Make sure your decisions about all your future steps are based on solid foundations – with Reflex product information. You will find everything you need to know about products and systems in our brochures and at [www.reflex.de](http://www.reflex.de). Well arranged and clearly explained – from the wider context to technical details.

Request the latest Reflex brochures directly from your Reflex field sales engineer, via our central phone number or – even simpler – online as PDFs at [www.reflex.de](http://www.reflex.de)

# Take advantage of our knowledge

The market for water supply engineering is developing fast. It is good to know that you can simply keep pace with support from Reflex. We simultaneously offer you a number of different options for reliably achieving results in practice: You will be ready to face every challenge with our well designed program of seminars, our planning guide and technical design support.



## Introducing our competency program: the Reflex Seminar and Training Center

The Reflex seminar program aims to help you advance in your daily working life. Lecturers deal with these topics every day and are qualified to communicate their expertise to help you progress – from technology to standards and legal regulations. In the Reflex Seminar and Training Center on the Große Kleimann estate – a renovated Westphalian estate – you will not just enjoy typical Münsterland surroundings, but in our practice lab you will also have the opportunity to practice what you have learned about a range of topics.



To attend a Reflex seminar or training course, simply visit [www.reflex.de/seminare](http://www.reflex.de/seminare) where you will find further information, an overview of topics and dates and a brief introduction to our lecturers. And, of course, you can book to attend directly online.

For further support in person, call our Seminar Team Mondays to Fridays between 8.00 a.m. and 4.30 p.m. on +49 2382 7069-9590 or e-mail [seminare@reflex.de](mailto:seminare@reflex.de).

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### Detailed knowledge: In our design guides

Depending on the complexity of the task, doing the calculations yourself can often be the most viable way of achieving the correct design of a system. The Reflex Design Guide has been produced precisely for this purpose. You'll find a summary of Reflex product development knowledge and expertise here, succinctly laid out in the form of easily comprehensible, step-by-step information. Ideal as a reference document for formulae, calculation paths and physical principles – and an indispensable guide book for anyone working on the systematic design of hydraulic supply systems.

You can find the Design Guide online at [www.reflex.de](http://www.reflex.de) under „Service“.



### Technical design support: For tricky cases

You can also rely on our special service department if you have specific requirements relating to your project: Reflex has a team of proven specialists in its technical design support department to develop a professional and expert recommendation for you or to provide suggestions for improving your existing design.

Reflex design support is coordinated by your field sales team. Therefore please contact your Reflex field sales engineer in the first instance.