

## COMPANY PROFILE

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## RESATO INTERNATIONAL: THE BEST IN HIGH-PRESSURE TECHNOLOGY

### INTRODUCTION

Resato International B.V. is one of the leading manufacturers in the field of high pressure technology, developing high pressure components and systems up to 14,000 bar. As a result of nearly 20 years of experience, Resato has grown to become an intelligence center for the development, production and application of high-pressure systems. This forms an open source of information that is always at the disposal of our customers. Resato products are distributed worldwide via expertly trained agents. In-house engineering and manufacturing are the basis for a unique formula that guarantees the quality of all Resato products. Our premises in Roden, The Netherlands, provide an ideal environment from which Resato continues to respond to the demands of a constantly evolving market.





## ENGINEERING

Safety, reliability and ease of operation are the main features of our in-house developed components and systems. In addition to excellence in the field of high pressure technology, our team of engineers possess extensive knowledge of the most modern techniques and computer-control. Customer specific requirements are interpreted to provide the optimum solution with safety and reliability being of the utmost importance. It is this expertise, which continues to attract our many customers to Resato.



## PRODUCTION

Our modern production facilities, combined with an extensive stock range ensures that Resato can provide a quick delivery service to their customers worldwide thus enabling us to maintain the highest level of efficiency and perfection. Multifunctional and motivated specialists are involved from quotation to operation stage resulting in excellent products which will meet our customers' requirements exactly.



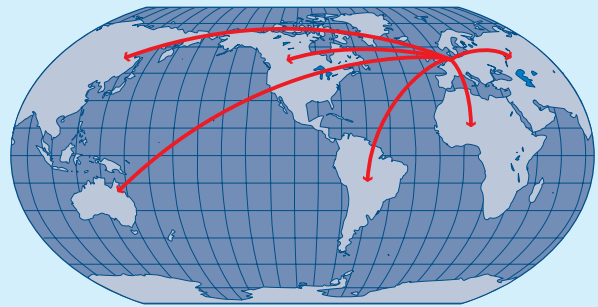
## SERVICE AND CALIBRATION

Due to low maintenance costs and minimal downtime the Resato Service Department can guarantee the optimum use of your equipment. Regular calibration and maintenance are critical to the process, and who better to provide this service than the manufacturer of the Resato products? Our service department offers the highest level of service possible for all high pressure systems and components. In addition, Resato guarantees that spare parts for your equipment will be available for up to ten years. To fulfill your long term needs, we offer excellent maintenance contracts for your machines. Also our service department and high stock levels are available in case of break down. In addition, we are able to anticipate adapting or expanding your installation.



## LONG DISTANCE SERVICE

Resato makes use of advanced computer technologies to ensure smooth operation and fault analysis of your high pressure computer controlled system at a distance. In practice, this equates to a virtually in-house service by highly experienced Resato employees. Modifications and changes in software can be implemented remotely from our premises in Roden, The Netherlands, saving many hours of travelling and labor.



## RESATO PRODUCT RANGE

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Resato offers a unique combination of in-house engineering and production of both components and systems, and we are proud to present our extensive product range in the following pages.

This product overview gives a good impression of our scope of delivery. If you wish to receive more detailed information on one or more of our products, do not hesitate to contact us. Our sales department would be pleased to be of assistance to you and is ready to answer any questions concerning our products.





## PORTABLE AIR-DRIVEN POWER PACKS

- Pressure range up to 3650 bar / 50,000 psi
- Flow up to 50 L/min
- Suitable for water, oil, and a wide range of chemicals
- Provided with reliable Resato air-driven pump
- Low noise level even at high cycling speed
- All stainless steel construction
- Direct water feed or with built-in reservoir



## MOBILE AIR-DRIVEN HIGH-PRESSURE HIGH-FLOW PUMP UNITS

- Pressure range up to 5700 bar / 80,000 psi
- Flow up to 50 L/min per pump
- Suitable for water, oil and a wide range of chemicals
- Provided with one or more Resato air-driven pump(s)
- Low noise level even at high cycling speed
- All stainless steel construction
- Proven reliability under severe conditions
- Suitable for direct water feed or provided with stainless steel reservoir
- Numerous options available such as forklift pockets, wheels, reservoir, lid and engraved panel



## COMPACT HOSE TEST UNIT WITH INTEGRATED TEST COMPARTMENT

- Pressure range up to 1790 bar / 26,000 psi
- Direct water feed or built-in stainless steel reservoir
- Flow up to 2.4 L/min
- All stainless steel
- Easy and safe manual operation
- Safety cover automatically bleeds off pressure when opened
- Ergonomic design





## PORTABLE AIR-DRIVEN GAS BOOSTER UNITS

- Pressure range up to 1250 bar / 18,000 psi
- Suitable for Air, Nitrogen, Argon, Helium and a wide range of other gases
- Provided with Resato air-driven single acting, double acting or two-stage gas booster
- Water-cooled Oxygen boosters available
- All stainless steel construction



## AIR-DRIVEN GAS BOOSTER WORKSHOP UNITS

- Pressure range up to 1250 bar / 18,000 psi
- Suitable for Air, Nitrogen, Argon, Helium and a wide range of other gases
- One, two or three stage systems built up with air-driven Resato gas booster(s)
- Low noise level
- Open or closed stainless steel frame
- Option: hydraulically driven
- Numerous other options available



## AIR-DRIVEN WORKSHOP TEST UNITS

- Pressure range up to 5700 bar / 80,000 psi
- Flow up to 50 L/min per pump
- Provided with one or more Resato air driven pump(s) or booster(s)
- Direct water feed or with built-in reservoir
- Manually operation or computer controlled
- Ergonomic, safe and user-friendly design
- Low noise level
- Suitable for various test mediums such as tap water, oil, an emulsion of both and many other liquids and gases
- Modular and flexible design makes it possible to build a unit to your specific requirements
- Provided with hand-operated or air-actuated valves
- Numerous options available



## AUTOMATIC HOSE TEST UNIT WITH INTEGRATED TEST COMPARTMENT

- Pressure range from 1 up to 10,000 bar / 150,000 psi
- Standard with fully automatic test cycle control
- Easy and user-friendly operation with Resato hose test software with “Test job manager”
- 15” touch panel
- Quick serial testing through preset test pressure
- Spacious test compartment; use of (Euro)pallet is possible
- Each pump range is supplied with an electronic pressure transmitter for accurate measurement
- Low noise level
- Option: burst test box
- Option: length measurement
- Option: twisting measurement
- Option: volumetric expansion measurement





## CUSTOM MADE HIGH-PRESSURE SYSTEMS

- Autofrettage equipment
- Gas booster systems for airbag industry
- Intensifiers for hydroforming
- Special valve test equipment
- Camshaft production equipment
- Bolt tensioning equipment



Intensifiers for hydroforming

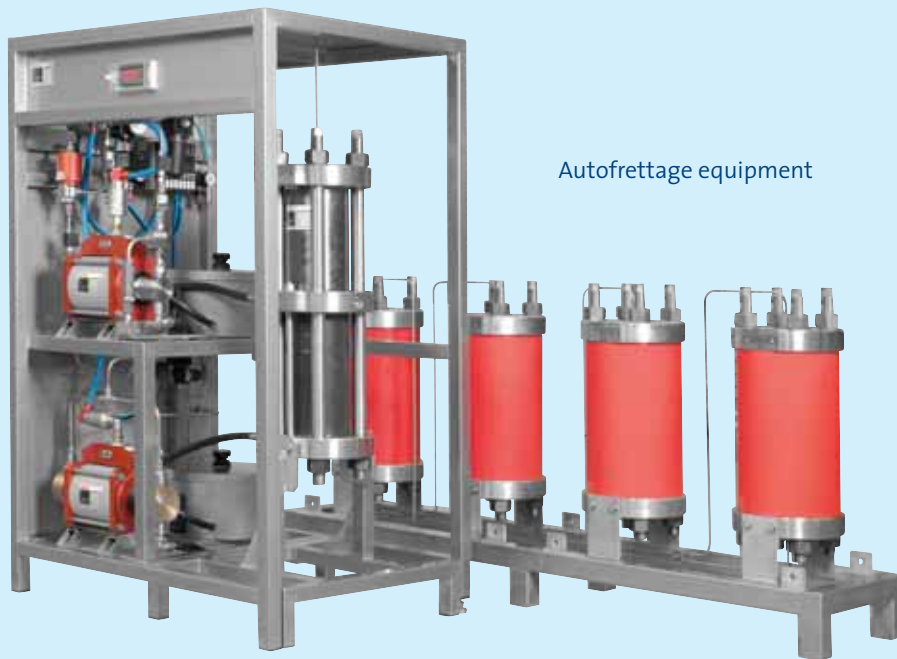


Camshaft production equipment



Gas booster systems for airbag industry





Autofrettage equipment



Special valve test equipment

## OIL AND GAS FIELD EQUIPMENT

- Wellhead control units (DHSV / MV / WV / BOP / ESD)
- Hydraulic test units
- Gas test units
- Chemical injection units
- Pressure range up to 30,000 psi
- Valves, fittings, tubing according to NACE



Multi line BOP control unit



Mobile multi gas booster unit



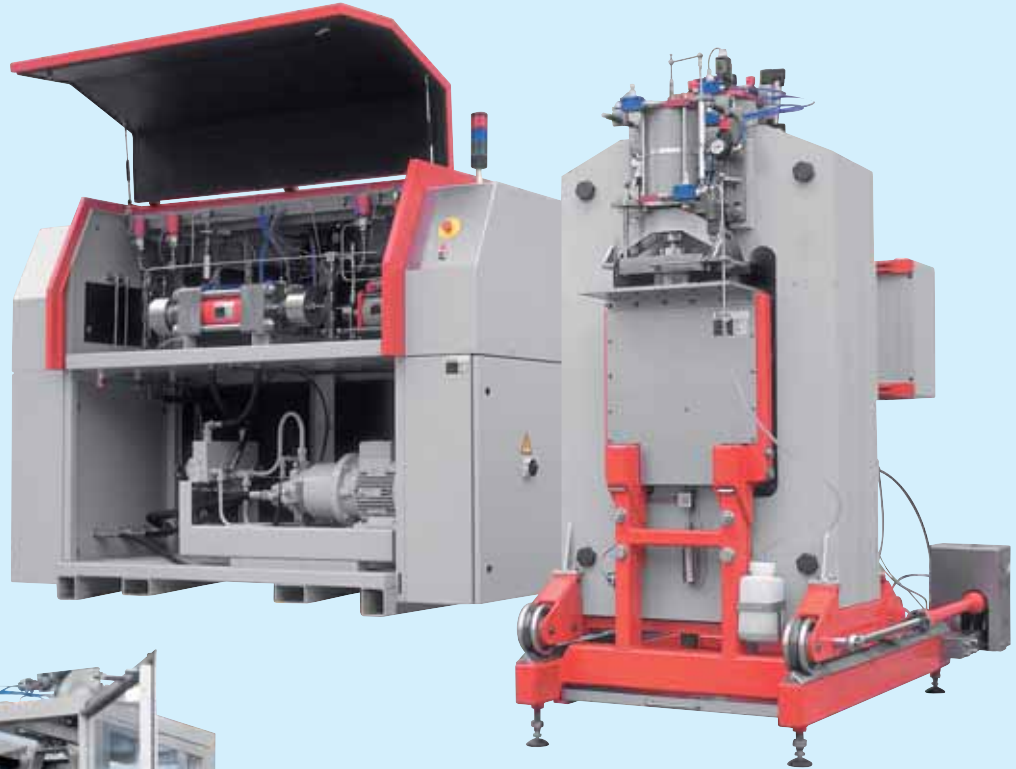
Combined wellhead control unit



## ULTRA HIGH-PRESSURE SYSTEMS AND AUTOCLAVES FOR FOOD PROCESSING

- Pressure range up to 14,000 bar / 200,000 psi
- Laboratory systems
- For food conservation and preparation
- For pressure shift freezing
- Single shot or reciprocating intensifiers
- Suitable for one or multiple autoclave systems
- Computer controlled

Ultra high-pressure  
food processing  
unit



Multiple autoclave system

## WATERJET CUTTING SYSTEMS

### WATERJET CUTTING PUMPS

- Various models
- Pressure range up to 4000 bar
- Flow: 2.1 up to 7.6 L/min
- Max. power: 75 KW



### WATERJET CUTTING MACHINES

- Various sizes up to 3 x 6 m
- Electronic abrasive dosing system
- Automatic height sensor with collision protection
- Standard up to three cutting heads
- Optional four cutting heads and more



## HAND-OPERATED AND AIR-ACTUATED VALVES

- Working pressure up to 14,000 bar / 200,000 psi
- For tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"
- Large orifices at rated pressures
- Excellent flow capacity performance
- Safety guaranteed by special safety cover
- Smooth operation under pressure
- High-quality stainless steel
- Panel mounting or in-line connection
- Suitable for fluids and gases



## HIGH-PRESSURE TUBING

- Working pressure up to 14,000 bar / 200,000 psi
- Tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"
- For applications requiring both strength and corrosion resistance
- High-quality internal and external surface finish
- Ready made tubing/nipples available
- In-house autofrettaged tubing available



## HIGH-PRESSURE FITTINGS AND ADAPTERS

- Working pressure up to 14,000 bar / 200,000 psi
- For tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"
- Large orifices at rated pressures
- Excellent flow capacity performance
- Safety guaranteed by use of weep holes
- High-quality stainless steel
- Suitable for fluids and gases





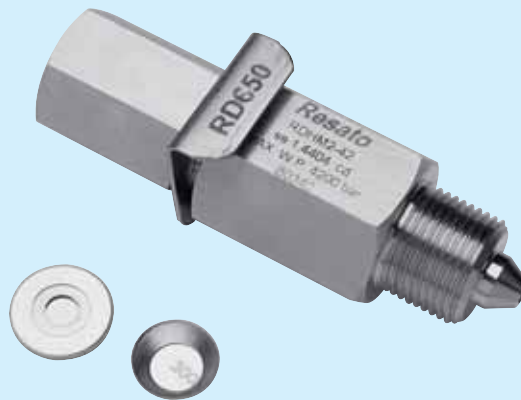
## HIGH-PRESSURE CHECK VALVES

- Working pressure up to 14,000 bar / 200,000 psi
- For tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"
- Direct and in-line mounting
- Soft seating up to 4200 bar ensures high reliability
- Suitable for fluids and gases
- Large orifices at rated pressures
- All wetted parts of stainless steel



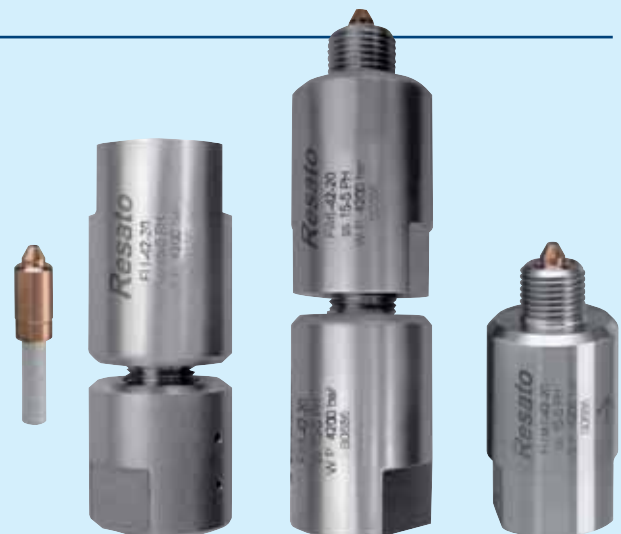
## RUPTURE DISC HEADS

- Working pressure up to 7000 bar / 100,000 psi
- Can be installed in any type of fitting
- Suitable for fluids and gases
- Wide range of rupture discs available



## HIGH-PRESSURE FILTERS

- Working pressure up to 4200 bar / 60,000 psi
- For tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"
- Direct and in-line mounting
- Excellent flow capacity performance
- Various filter porosities available
- All wetted parts of stainless steel
- Suitable for fluids and gases
- Long service life owing to large filter surface area



## QUICK CONNECTORS

- Working pressure up to 4200 bar / 60,000 psi
- For tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"
- Large orifices at rated pressures
- Closed type with internal soft seat check valves available up to 2500 bar
- Direct and in-line mounting
- High quality stainless steel
- Suitable for fluids and gases



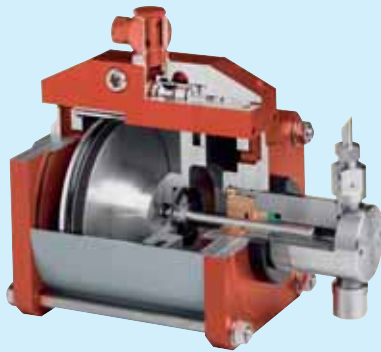
## HIGH-PRESSURE HOSES

- Working pressure up to 2800 bar / 40,000 psi
- Low volumetric expansion
- Maximum orifice 12.8 mm
- Small outside diameter
- Low weight
- Suitable for fluids, gases and chemicals
- Optional test certificate, hose guard and safety grips



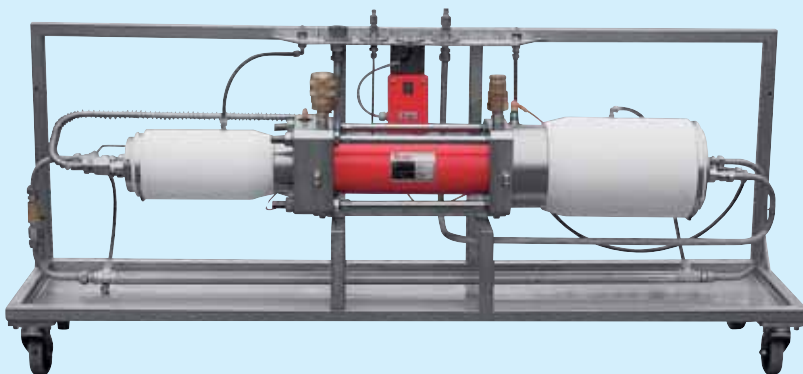
## AIR-DRIVEN PUMPS

- Working pressure up to 7000 bar / 100,000 psi
- Choice of 40 different types
- Horizontal mounting, single and double acting
- Flow up to 50 L/min
- Modern modular design, no mechanical pilot valves
- Low noise level even at high cycling speed
- Easy maintenance
- Proven reliability under severe conditions
- Easy conversion from single acting into double acting pump
- Pump ratio of an existing pump can be easily changed
- Suitable for water, oil and a wide range of chemicals
- Option: hydraulically driven



## AIR-DRIVEN GAS BOOSTERS

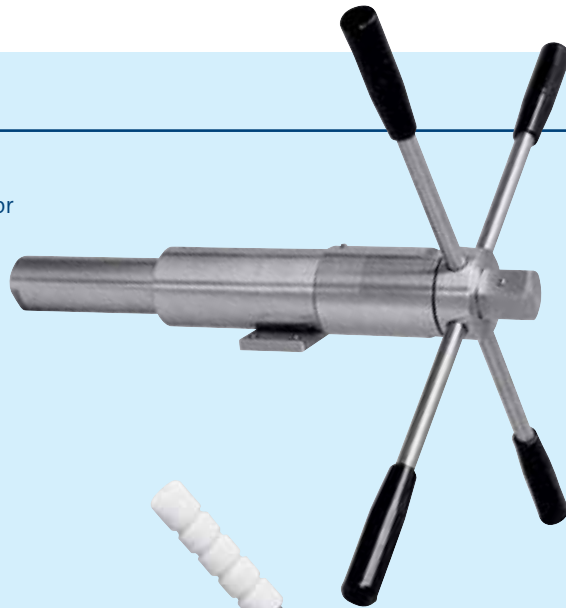
- Working pressure up to 1245 bar / 18,000 psi
- Choice of 61 different types
- Single acting, double acting or two stage
- Low noise level even at high cycle speed
- Ceramic check valves
- Easy maintenance
- Modern modular design, no mechanical pilot valves
- Proven reliability under severe conditions
- Option: hydraulically driven



Option: hydraulically driven gas booster

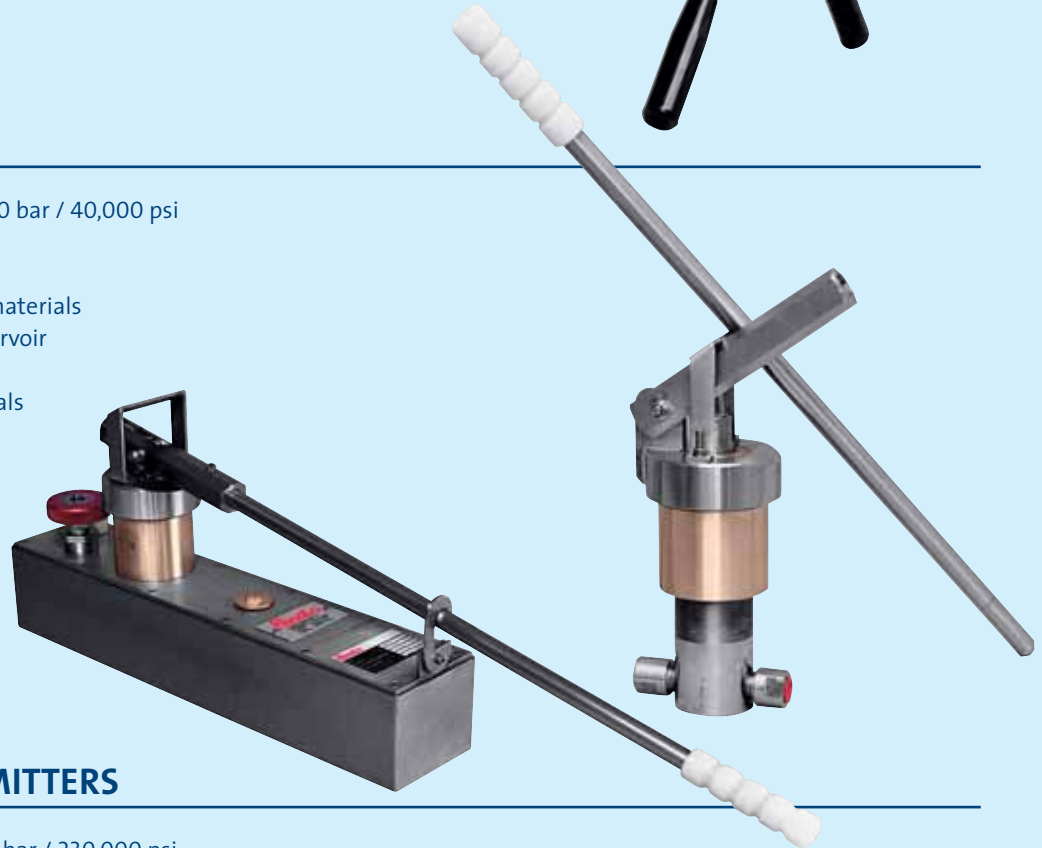
## SPINDLE PUMPS

- Working pressure up to 7000 bar / 100,000 psi
- Manually operated or operated by stepping or servo motor
- Accurate pressure control
- All wetted parts of high-quality stainless steel
- Suitable for water, oil and a wide range of chemicals



## HAND PUMPS

- Working pressure up to 2800 bar / 40,000 psi
- Easy manual operation
- Large stroke capacity
- Stainless steel and bronze materials
- Optional stainless steel reservoir
- Suitable for water, oil and a wide range of chemicals



## PRESSURE TRANSMITTERS

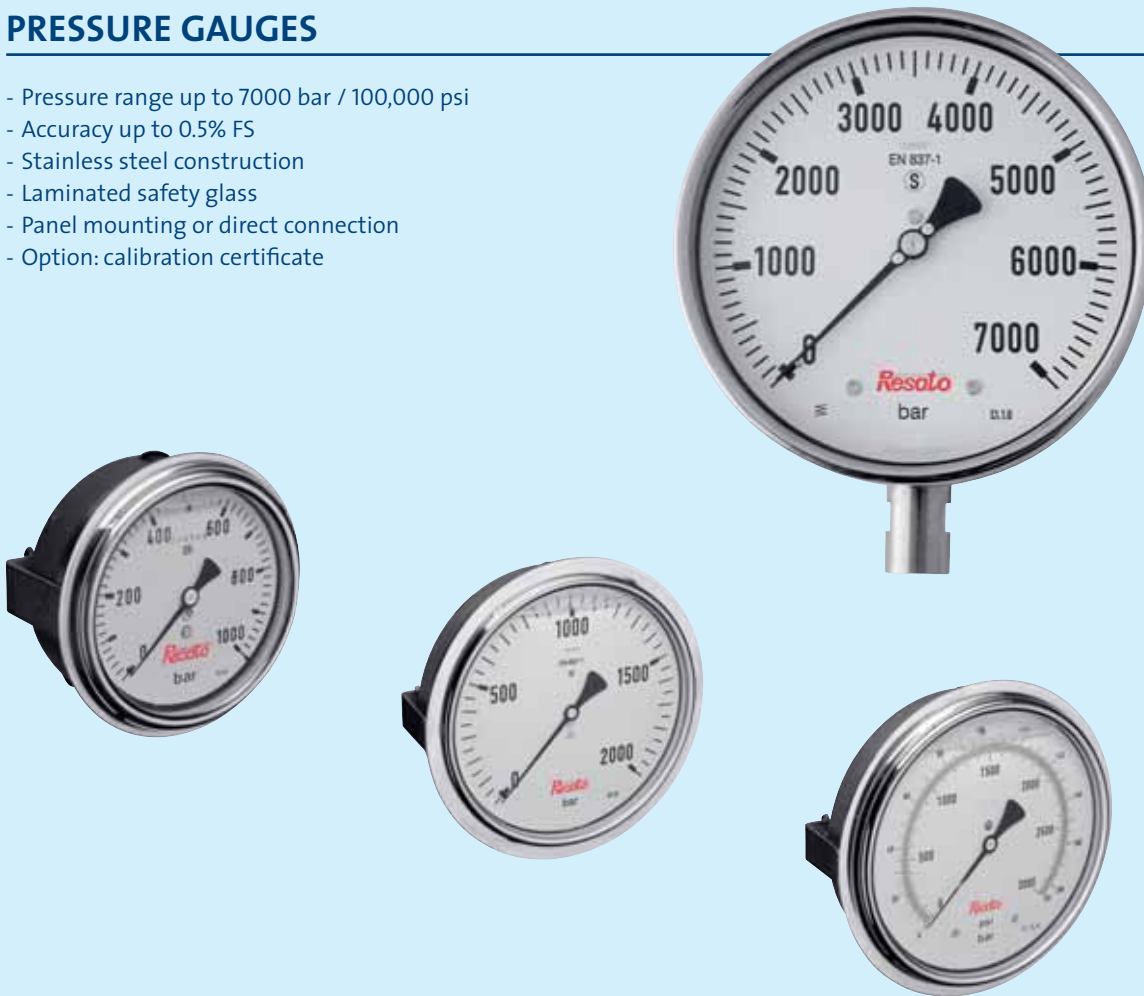
- Pressure range up to 16,000 bar / 230,000 psi
- Available in 22 pressure ranges
- Accuracy up to 0.1%
- Long-term stability, low operation costs
- Output signal 0-10 V or 4-20 mA





## PRESSURE GAUGES

- Pressure range up to 7000 bar / 100,000 psi
- Accuracy up to 0.5% FS
- Stainless steel construction
- Laminated safety glass
- Panel mounting or direct connection
- Option: calibration certificate



## MECHANICAL CIRCULAR CHART RECORDERS

- Pressure range up to 4000 bar / 60,000 psi
- Accuracy up to 1.0% FS
- Stainless steel construction
- Several clock types available
- Panel mounting or portable model
- Option: calibration certificate



## PC DATA ACQUISITION AND RECORDER SYSTEM

- Automatically creates test certificates, A4-format
- Test graph on your own PC or laptop
- Up to 4 input channels for pressure or temperature
- Suitable for all types of pressure test units
- Calibrated system, ready-for-use
- User-friendly software including manual on CD ROM



## TOOLS

- Bending tools
- Coning tools
- Threading tools
- Reseating tools
- All tools easy to use
- High-quality blades and dies
- Suitable for tubing sizes 6 mm, 10 mm, 14 mm, 1/4", 3/8" and 9/16"



Threading tool



Coning tool



Bending tools

## PRODUCT/MARKET RESATO INTERNATIONAL B.V.

### OIL AND GAS INDUSTRIES

- wellhead control units (DHSV MV WV BOP ESD)
- well control units
- pressure test and recording systems
- chemical injection units
- air-driven pumps, gas boosters and components

### CHEMICAL AND PETROCHEMICAL INDUSTRIES

- pressure test units
- circulation systems
- chemical injection units
- rotating seal systems
- air-driven pumps, gas boosters and components

### AUTOMOTIVE AND AEROSPACE INDUSTRIES

- autofrettage systems
- hydroforming
- airbag gas filling systems
- common rail diesel test systems
- hydraulically driven gas boosters, pumps and fittings
- hose test units and cycle test units

### MARINE AND SHIPYARDS

- workshop pressure test units
- portable power packs
- bolt tensioning and bearing drive out systems
- oceanic pressure simulation
- air-driven pumps, gas boosters and components

### INDUSTRIAL RESEARCH AND UNIVERSITIES

- geological and oceanic pressure simulation
- food preservation
- material research
- autoclaves and optical cells
- hydraulically driven intensifier units

### HOSE MANUFACTURERS AND DISTRIBUTORS

- manually controlled test units
- computer controlled pressure test units
- mandrel drive out units
- burst pressure test units
- laboratory and research test units
- PC data acquisition and recording systems

### ORIGINAL EQUIPMENT MANUFACTURERS

- autofrettage systems
- bolt tensioning
- wellhead control units (DHSV MV WV BOP ESD)
- hydraulically driven intensifier units
- pumps, gas boosters and components

### HIGH-PRESSURE CLEANING INDUSTRIES

- pressure test equipment
- valves, fittings and tubing
- high-pressure hoses
- pumps and intensifiers

### WATER JET CUTTING APPLICATIONS

- complete cutting machines
- hydraulically driven waterjet pumps
- rotating swivels
- cutting heads
- valves, fittings and tubing

### PRESSURE VESSEL AND PIPING MANUFACTURERS

- pressure test and recording systems
- workshop pressure test units
- portable power packs
- air-driven pumps, gas boosters and components
- PC data acquisition and recording systems

## RESATO INTERNATIONAL BV



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Please note that general data and specifications given in this brochure are subject to change without notice.  
Feel free to contact our sales department if you need more definite information.