



RECHERCHES & REALISATIONS REMY S.A.S

## MANUFACTURER OF MACHINES & EQUIPMENT FOR RESEARCH AND CIVIL ENGINEERING

Founded in 1987, **3R** company (Recherches & Réalisations Rémy) is the french leader **in the field of testing machines for civil engineering**, with more than 2500 automatic machines, installed in some of the most prestigious laboratories. 3R is also a well-known **partner of engineering schools**, with 75% of French Universities equipped with our machines and systems. 3R is also present in Universities in Belgium, Morocco, Algeria, Tunisia, as well as Switzerland and Canada.

### TESTING MACHINES

#### TESTING RIGS

Since the year 2000, we are manufacturing flexural testing rigs with **mobile gantries**, for all sizes of beams, fencing posts, hollow core slabs, shear test on walls, and materials such as concrete, wood or steel.

These testing frames have a self-resistant chassis and one, two (or up to six) mobile gantries (load 50 up to 400 kN per gantry).

Jacks can be hydraulically servo-controlled, or electromechanical with servo-motor, depending on the tests to perform.

Here again, ergonomics was the main concern during the development, which lead to the design of mobile gantries for easy positioning of long specimen.



WE DO MODERNIZE TEST BENCHES OR GANTRIES. DO NOT HESITATE TO CONTACT !







## RETROFITTING EXISTING FRAMES

Since its early years, 3R has been interested in retrofitting customer's old existing machines. Testing frames being usually indestructible, customers can give their machines a second life, and connect them to an automatic control units such as a Quantris, Techtris, Quantech or Quantum power-packs.

Modernized in such a way, these machines can generally be upgraded to class 1, and offer great services at very reasonable cost!

3R offers a similar solution for electromechanical machines, called RETROTECH solution. In this case, modernization will also include, in addition to the control unit (PC and analysis software), the replacement of the servo motor and the electronics.

### QUANTRIS

*Quantris*



TONINDUSTRIE 200 kN



PERRIER 2500 kN



AMSLER 2000 kN

### TECHTRIS

**TECHTRIS**

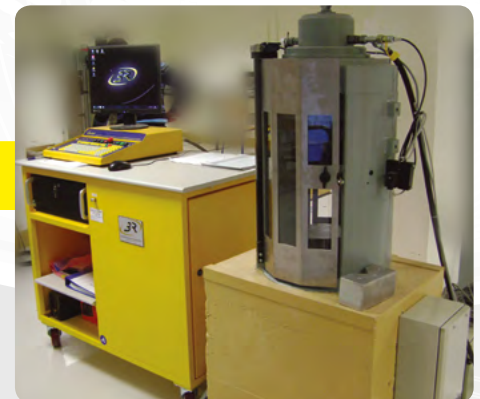
### QUANTECH

*Quantech*

MOHR & FEDERHAFF 5000 kN



FORM+TEST 3000 kN



PERRIER 1000 kN

### QUANTUM

*Quantum*<sup>TM</sup>



SCHENCK 200 kN



LOSENHAUSEN 1000 kN & OSENHAUSEN 5000 kN

# COMPUTERIZED CONTROL UNITS

## QUANTECH



*Quantech*

The **Quantech** control unit is equipped with the latest generation of industrial PC computer allowing the management of complex tests, data analysis, display of curves, connection of several sensors and print out of customized test reports.

It is designed to meet all standards in the following fields: concrete, cement, rebar, soil, asphalt, plaster, wood, paste, coating ...

A large majority of top industrialists and engineering schools have chosen to use our Quantech.



	Servo Limiter	Servo valve	Connected frames	Measurement channels	Industrial computer	Touch screen	Analog Output	Size L x W x H (in mm)	Weight (in kg)
<b>QUANTECH</b>	Yes	No	4	16	Yes	Optional	1	1 160 x 710 x 1 025	280
<b>QUANTUM</b>	Yes	Yes	8	16 or 32	Yes	Yes	7	1 425 x 920 x 1 200	390

## QUANTUM

*Quantium*<sup>TM</sup>

With the same advantages which have contributed to the overwhelming success of Quantech, **Quantium** is a control unit with an even higher performance level. Upgraded electronics (up to 32 sensors connected, up to 7 analog outputs) and state of the art hydraulics. It is able to manage up to 8 different frames, its hydraulic power pack is equipped with a big flow hydraulic pump with oil cooler, and the servo valves are mounted on the jacks...

Quantium is the ideal equipment for research laboratories and engineering schools.



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# MACHINES AND SYSTEM FOR EDUCATION

Since 2011, benefiting from its expertise in testing machines, 3R has successfully developed a range of machines and systems exclusively targeted to educational institutions: High Schools, Universities and Engineering Schools.



## DIDACTIC RIG FOR MATERIALS & STRUCTURES

### BED 100

la Qualité made in France

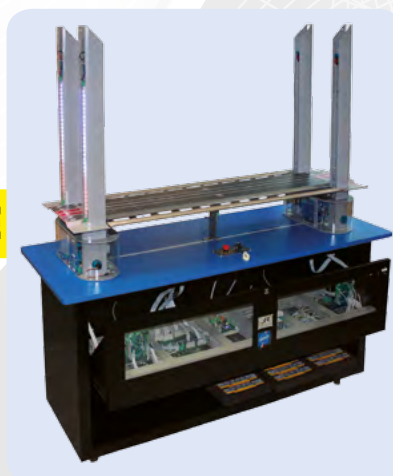
Designed for an educational and experimental approach of knowledge acquired during tutorials on materials resistance and structural analysis.



## UNIVERSAL TESTING MACHINE

### RP25 ATF

Didactic Universal Testing Machines for materials characterization. Developed for tensile, flexural, compression, hardness, stamping and shearing tests.



## DIDACTIC APPROACH FOR ENGINEERING SCIENCE

Analysis of the operation of a system and its components, based on a mock-up at 1/100th scale of the famous «Chaban-Delmas» lift bridge in Bordeaux, France. Tutorials on mechanical resistance, energy and signal.



## THERMAL CELL FOR BUILDING MATERIALS

### THERMO<sup>3</sup>

Device for measuring thermal full scale transfers, through a full dimension vertical plane wall. Tutorials on thermal bridges, moisture, thermal radiation, temperature gradient and so on (from -10° up to +40°C)

## EARTHQUAKE SIMULATOR

### Sysmo

Delivered with a set of mock-ups, and optional accelerometers + software for visualization of seismic waves on a structure..



[www.3r-labo.com](http://www.3r-labo.com)

## RECHERCHES & RÉALISATIONS REMY SAS

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