

ENGLISH SUMMARY OF CONTENTS

ROUNDTABLE

RT 2005 regulation into practice

A roundtable regarding the French thermal regulation RT 2005 and its enforcement took place on January 31st, with participants from various professions: CSTB, represented by Jean-Robert Millet; design engineers with Dominique Allehaux and Jean-Claude Bastide; building owners with Raymond Sauvegrain, Catherine di Costanzo and Jacques Daliphard. p 14

DOSSIER:

Variable speed drive, a source for savings

> Dossier co-ordinated by Franck BENASSIS & José NAVETEUR

What's new and which feedback regarding variable speed ?

> by Franck BENASSIS
Variable volume and electronic variable speed drive have been regularly dealt with for more than 20 years in CVC columns. The article is about situation to-day, the development potential against rising energy costs and the improvements brought by manufacturers. p 19

Variable speed pumping: a huge saving potential

> by Christine LEPER
About 30% of electrical consumption in the industry is for pumping, of which up to 60% can be saved with variable pumping. Variable flow pumps may also provide permanent adaptation of hydraulic power to actual demand? p 20

Variable speed and energy savings

> by Daniel GONTERMANN
Savings from traditional pumping systems may be as high as 60%. Examples are given of variable speed advantages for various systems. p 24

Energy efficiency and variable speed: feedback from experience in industrial utilities

> by Bernard DEFORNEAUX
About the potential and benefits of variable speed drive, with some indications of savings observed in various industrial premises. p 27

Variable speed - Which consequences for control system?

> by Raphaël Gomez
As thermal loads are largely variable with seasonal conditions, the need to adjust the energy distributed to the actual needs is obvious. The control system has to provide for it and to ensure at the same time adequate pressure conditions for the operation of local control valves. p 28

Why balancing?

> by Sabine FOREST-BOULET and Geneviève PERRET
Automatic balancing control valves realise a good combination with variable speed. p 30

A green and thrifty district

> by Jacques FAVREL
Within the renovation of a district heating system (two heating plants and their distribution pipework), variable speed pumps have been installed and provide significant savings. p 33

DOSSIER:

Heat pumps : growth continues

> Dossier co-ordinated by Jean PRADERE

AFPAC's quality process

> by Didier RYS
The quality process initiated by AFPAC is now in operation with heat pumps certified NF PAC coming to the market and the first contractors obtaining Qualipac label. p I

Heat pumps global performance in housing sector - Assessment with on-site measurement campaigns

> by Johan RANSQUIN
The fast growing heat pump market sometimes raised questions regarding the extent of related primary energy savings. In order to verify the efficiency of heat pumps for heating systems, ADEME realised several on-site measurement campaigns, methods and results of which are dealt with in the article. p V

Aquapac and Qualiforage: for accompanying the development of geothermal energy in France

> by Alain DESPLAN and Pascal MONNOT
AQUAPAC is a guaranty system covering the geological risks which could have an effect on the energy resource from low-depth aquifers. QUALIFORAGE is a quality label for drilling contractors. Both systems are presented in the article. p IX

Natural gas heat pumps

> by Thomas MULLER
Heat pumps can use natural gas as primary energy, either in the way of gas-fired engine driving the heat pump compressor, or by using an absorption thermodynamic cycle. Both systems are presented therein. p XIII

CNCS in Moulins

> by José NAVETEUR and S.BERTHELOT
CNCS is a national museum installed in an historic building for conservation and presentation of stage costumes and scenery. The air conditioning and heating of the building are provided by a geothermal heat pump using the water resource of local watertable aquifer. p XVIII

Retrofitting an ancient barn into a town hall

> by Philippe LEBEAU and M.VERON
Description of the heat pump system getting geothermal heat from an horizontal ground heat exchanger. p XXI

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Michel Amiel, directeur technique Exploitation Zone Europe Centrale et Orientale chez Dalkia

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