

ENGLISH SUMMARY OF CONTENTS

PROFESSION Ciat

Visit of Nicolas Sarkozy at CIAT

> by Bertrand Montmoreau

The French president Nicolas Sarkozy and some of his ministries have visited CIAT the first French manufacturer of heat pumps, in Culoz in September 2009. The company is manufacturing heat pumps, dual systems solar-heat pump and also solar cooling systems. 2400 people are working in CIAT (1600 in France) and producing 30 000 units per year.

p11

PROFESSION Salon

Efficiency and sustainability at BATIMAT

> by Michel Laval

BATIMAT, International fair of building, took place in Paris in November 2009. The fair gathered 3000 stands and presented equipments and material in the fields of sustainable development and energy efficiency. ADEME, FFB and CAPEB were involved in this event. Building envelop systems were as more as numerous than efficient equipments.

p14

PROFESSION - Round table

Competitiveness clusters related to energy field

> Coordinated by Bernard CAROFF

Innovation, technological development, financial support... By integrating a competitiveness cluster, a company enters a network that facilitates its exchanges with complementary skills' key players. Four competitiveness clusters related to energy engineering in the building sector present us their activities: Tenerrdis, S2E2, Derbi and Capénergies. A competitiveness cluster gathers on a given territory research centres, companies and training organisations that develop synergies and cooperation through innovative joint projects. The cluster helps member companies to take a leading position in their areas both in France and beyond. By creating competitiveness clusters in 2004, the Government wished to strengthen competitiveness, develop employment on leading markets and strengthen the local communities. 71 clusters have been created in France since 2005.

p16

An interview with...

Yves Arnaud, The director of SNC LAVALIN SAS

> by Emmanuelle Jeanson

Yves Arnaud, is the director of SNC Lavalin SAS located in Ivry-sur-Seine. The company is a subsidiary of a Canadian group and is dealing with the management of public and private projects in the field of building and urban planning projects.

p62

DOSSIER I

Cooling refrigeration machine's condensers

> Dossier Coordinated by Jack BOSSARD

Choosing a condensers cooling solution is linked primarily to the energy consumption of the system, to the cost of water and to the risk of transmission of the legionellosis.

Different solutions are offered by the manufacturers and it belongs to the designer of the project to choose the best solution according to the following criteria:

The declaration or the authorization demand

The running cost and the cost of maintenance

The energy consumed and the incidence of water treatment

The hypothesis of calculation (water temperature, basis dry outdoor temperature, wet outdoor temperature, etc ...

The regulation system

The setting up of equipments

The available space on site

The sound level

The impact on the environment

The investment cost

p22

DOSSIER II

Maintenance of hydraulic and thermal machines

> Dossier coordinated by Franck BENASSIS

Turbomachines and heat exchangers are essential auxilliaries for power generation plants and HVAC systems.

For twenty years, the progress made for the control and supervision of rotating machines have allowed for further analysis of the phenomena registered and have been great tools for maintenance.

It is the same for the heat exchangers which are more and more used in HVAC systems.

p36

SOMMAIRE

ÉDITORIAL	3
ACTUALITÉS	6
PROFESSION	11
ENTREPRISE	
Visite présidentielle chez Ciat.....	11
CONCOURS	
Concours d'architecture rénovation bas carbone EDF 2009: les lauréats.....	12
SALON	
Batimat 2009:	14
TABLE RONDE	
Les pôles de compétitivité	16
DOSSIER I	22
LES SOLUTIONS DE REFROIDISSEMENT POUR LES CONDENSEURS	
Refroidissement, environnement et performances.....	22
Conception et fonctionnement d'aéroréfrigérants.....	27
Les aéroréfrigérants à pulvérisation contrôlée, une technologie en plein développement	30
Le refroidissement sec et humide	33
DOSSIER II	36
MAINTENANCE DES MACHINES HYDRAULIQUES ET THERMIQUES	
Aide à la maintenance : les systèmes de surveillance de dégradation des machines.....	36
Machines tournantes: l'intérêt du contrat de maintenance.....	40
Les outils pour réussir l'audit des pompes de relevage.....	43
Circuits de refroidissement humides: gestion du risque légionelle et impact sur l'environnement	46
Échangeurs à plaques : quelle maintenance préventive?.....	51
La maintenance performance: comment ça marche?.....	54
RÉGLEMENTATION	58
QUESTIONS À...	62
Yves Arnaud	
PRODUITS / AGENDA	64

TABLE RONDE Les pôles de compétitivité 16



DOSSIER II Maintenance des machines hydrauliques et thermiques 36



Retrouvez
la Lettre de l'AICVF
à ses adhérents
en page 69