EMERSON
Climate Technologies

news release

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Interview to Mr. JEAN JANSSEN – Costruire Impianti magazine - February 09 issue

Questions

1 How do you see the main effects of the financial crisis in Europe in the HVAC&R business?
The financial crisis that we are experiencing in Europe in the second half of 2008 is having the effect of accelerating an economic slowdown that had already started well before. We are seeing the strongest effects in commercial and industrial applications, where the lack of investments and credit is in all effects slowing the growth of these markets that had seen high growth in the last few years.

2 And what actions does Emerson Climate Technologies plan or has started to limit their impact?
We are working in close contact with our customers and suppliers to be able to respond rapidly to the changes in demand and to maintain a good control on the operational performance of our division.

3 Presently, which market has been most badly hit by the effects of the crisis: air conditioning, refrigeration or heat pumps?
Refrigeration is the market that is most suffering at this stage, considering that the growth in emerging countries like in Eastern Europe and CIS had already started to decline before the financial crisis. In this segment we see a general decline both in the OEM and the wholesalers business, confirming the poor state of the economy. Commercial air-conditioning has started to slow down only recently, previously supported by strong export sales. We are confident that the financial measures that European Member States are now implementing can quickly support renewed investments in infrastructure and in turn support medium-term growth for HVAC&R. With regard to heat pumps, this market has experienced unprecedented growth in the last quarter of 2008 due to a combination of a strong seasonal cycle and high oil prices. This market is still not mature and is affected by high demand fluctuations that make it difficult to predict, but we have great confidence that it will continue to grow, especially considering the recent vote by the European Parliament on the RES directive, where heat pumps have been recognized as a renewable energy technology . That makes them eligible for incentives as Member States strive to reach the targets on renewable energy production.

4 Emerson Climate Technologies has developed an important marketing and sales organization in Europe; would you describe it?

We have always had a strong sales and application engineering organization, which is operating from sales offices across Europe, in close coordination with a central sales management team located in our European headquarters in Aachen, Germany. The central sales management team is organized in a matrix organization, which enables us to review the sales performance both by region and by market segment. Our marketing team is also located in Aachen, with responsibility for strategy and planning. We have separate groups with a strong product management focus on each of our business segments (air conditioning, refrigeration compressor and condensing units, and heating); it also has well-developed support functions like marketing communication and product planning that serves all markets.

5 And what about the production facilities and their output?

In 2004 we produced in Europe at nine different locations Scroll & Semi-Hermetic compressors, Condensing Units and Flow-Controls component. We saw the need to restructure and we finalized our restructuring end of 2008. Today we produce on four locations and each location has its specific focus. All locations are designed to follow the Lean manufacturing & lean office principles. Kaizen and six sigma methods are used on a daily base and are fundamental for our success.
Cookstown in Northern Ireland, their focus is high volume production with extreme short lead-time.
At the Welkenraedt site, Belgium, we recently invested several million Euros in a new production line for the second generation commercial scroll platform. The line sets a new benchmark in scroll manufacturing with a high level of automation.
Kolin in the Czech Republic is our centralized location where we produce our "Alco" flow control products very successful since 2001. This location is seen as one of our diamonds.
The latest investment is our new factory in Mikulov in the Czech Republic. From October 2008, it ramped up production for the European market of semi-hermetic compressors, DWM Copeland models as well as condensing units. The new 38,000 square meter facility in Mikulov is a modern plant in terms of productivity, environmentally friendly manufacturing, quality and ergonomics.
In January 2009, the site will furthermore open the doors to an European engineering center. Our objective is to bring together manufacturing, research and development to achieve a particularly fast time-to-market so that customers can benefit earlier from product innovations.

6 Emerson Climate Technologies produces two main lines of compressors: scroll and reciprocating, the first ones mainly for air conditioning and the reciprocating mainly for refrigeration. How much are the scroll compressors being used in refrigeration applications?

Scroll entered the refrigeration market over ten years ago, and it has experienced continued growth both in Western Europe and emerging markets. Scroll is a very flexible technology that can well adapt to a number of demanding applications, and its benefits in terms of seasonal efficiency for refrigeration applications are well recognized by many OEMs and consultants, while reliability and lightweight are additional benefits for installers. Our current scroll range is broadly used in food service and small supermarkets racks, with increasing applications also for large supermarkets in distributed systems. We are very pleased with the strong market demand of our most recent development of Digital Scroll for refrigeration, which delivers continuous modulation in a simple and efficient package. We are continuing the development of refrigeration scroll, always targeting high efficiency and best-applied cost.

7 In Europe there is a growing trend toward high-efficiency heat pumps for heating applications in the residential sector. You are sustaining this growth by offering a special type of scroll compressor designed for high temperatures.

We have identified the high potential growth of the heat pump market since early 2000, and have invested heavily to develop a full range of scroll compressors optimized for these applications. The Copeland Scroll Heating range is now very successful and has become the reference for efficiency and reliability in these demanding applications. We are fully committed to this market which offers large opportunities for the European HVAC industry, which we are supporting not only with high technology and product innovation but also with a strong participation in technical committees and associations in Brussels to ensure continued growth for this market.

8 Many consulting engineers agree that heat pumps are the most efficient solution for office buildings, offices, etc., but, at least in Italy, they see obstacles in the residential market. The homeowner simply knows very little about heat pumps. In your opinion how can our industry overcome such limitation?

In many countries the update of the heat pump technology for space heating and hot water production has been initially supported by the government, which has recognized its potential to reduce the consumption of primary energy and curb CO2 emission. In these cases, it has been a combination of government incentives and a professional approach by the manufacturers and installers that has secured long-term growth. In Italy the market development is still at an early stage,

as the local energy policy still favors the use of gas for space heating, and is now focusing on solar as a renewable energy source. We are continuing to work with the Italian associations to communicate the benefits of heat-pumps and we expect a renewed focus as Italy and other member states will work on the implementation of the Renewable Energy directive by mid 2010.

9 At the Chillventa exhibition in Nuernberg last October, Emerson Climate Technologies showed an impressive line of new models of scroll compressors, for air conditioning, refrigeration and heat pump applications. How were the reactions of OEMs?
The impressive display of new scroll compressors at the last Chillventa is the result of the strong focus on innovation and the continued investments in new products that are strengths of Emerson Climate Technologies. This is recognized by OEMs that rely on our technology and support to be leaders in their markets. This year at Chillventa we have expanded our portfolio to include also the building management systems, electric motors and drives from our other Emerson divisions -- Emerson Retail Services, Leroy Somer and Control Techniques -- which has created additional interest from OEMs that see new business opportunities.

10 If you could draw a balance between the air conditioning reciprocating compressors of the '80s and the present scroll compressors, how much would be the average improvement of energy efficiency?
The efficiency of the latest generation scroll compressor is over 25% higher than the efficiency of a reciprocating compressor from the 1980s, and we see further opportunities for scroll design and electronic controls optimization to improve system efficiency.

11 And it would be of the outmost interest to evaluate how much the scroll's design, compared to reciprocating design, has contributed to reduce the CO2 emissions in the world and has benefitted the environment...
Emerson Climate Technologies has an installed base of over 60 million scroll compressors worldwide, and is producing in excess of 7 million scroll per year. We have recently analyzed the contribution of scroll in terms of CO2 emissions, and we estimate a contribution of more than 20 million tons reduction of CO2 worldwide in the last decade.

12 In general, the situations of crisis require special measures. Should Europe relax its standard of growing energy efficiency of the products, until the crisis will be under control?

Improving energy efficiency and addressing the economic downturn are not necessarily contradictory. Energy efficient products can help create new jobs and help the economy overcome the current crisis. Energy efficiency is a long-term necessity, and the European industry has the opportunity to lead these new developments. Let me stress the fact that already today we have the opportunity to increase significantly the efficiency of HVAC&R systems and installations with existing technologies, but often the total life cycle cost is not always taken into account versus short-term gain and initial cost. We expect that the increasing European focus on the reduction of primary energy combined with the financial incentives to stimulate the economy will drive further demand for energy efficiency products.

13 And in conclusion, what are your interests, your hobbies, sports etc., assuming that you remain with some spare time after your work?

First of all I am married and I have three children. This is already hobby enough, but my wife took over this leadership since years and manages it very successful. Classic music and good literature helps to compensate but a biking tour with good friends on the weekends fresh's always up my mind.

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About Emerson

Emerson (NYSE: EMR), based in St. Louis, is a global leader in bringing technology and engineering together to provide innovative solutions to customers through its network power, process management, industrial automation, climate technologies, and appliance and tools businesses. Sales in fiscal year 2008 were US$24.8 billion. For more information, visit www.Emerson.com

About Emerson Climate Technologies

Emerson Climate Technologies™, a business of Emerson, is the world's leading provider of heating, ventilation, air conditioning and refrigeration solutions for residential, industrial and commercial applications. The group combines best-in-class technology with proven engineering, design, distribution, educational and monitoring services to provide customized, integrated climate control solutions for customers worldwide. Emerson Climate Technologies' innovative solutions, which include industry-leading brands such as Copeland Scroll™ and Alco Controls, improve human comfort, safeguard food and protect the environment. For more information, visit www.emersonclimate.eu

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