

At the Forefront of Heat Technology

Pune-based HRS Process Systems Ltd is one of the largest in the business of heat exchangers and evaporators and given the demand forecast from the food processing industry, the company is all set to ride a remarkable growth curve, discovers Huned Contractor in an interview with its managing director Mr V Gokul Das

Consider this: The global heat exchanger market is projected to cross USD 12.7 billion by 2012. The largest heat exchanger market is Europe with a share of over 36 per cent in 2008 and is forecast to cross USD 4.5 billion by 2012. The Asia-Pacific region represents the fastest-growing heat exchanger market, with a total annual growth rate of 4.8 per cent over the period 2000-2010. The overall process industry is growing at the rate of 7-10 per cent while the heat exchanger market is growing at a rate of 10-12 per cent. Heat exchanger sales to the chemical industry are projected to reach USD 2.7 billion by 2012. Heat exchanger sales to the pharma industry are projected to reach USD 3.5 billion by 2012 and to the fuel processing industry, the fastest growing end-use segment, these are projected to expand at a CAGR of 3.2 per cent over a period of 2000 -2012.

These are impressive figures, no doubt, which is why it makes sense to pin down V Gokul Das, the Managing Director of HRS Process Systems Ltd, one of the leading heat transfer specialists that operates at the forefront of thermal processing technology, for an interview. Gokul, with an experience spanning over 20 years, joined HRS Process Systems as Director in 2003 before his appointment as Managing Director in 2005. Under his leadership, HRS has seen the turnover grow from Rs 2.40 crore in 2003 to Rs 38 crore during the last fiscal in addition to a significant enhancement of the company's asset base. Gokul has overseen the setting up and commissioning of HRS' world-class manufacturing facility of 20,000 sq.ft at Koregaon Bhima, Pune. Excerpts from the interview:

Could you elaborate about the heat exchanger market?

A heat exchanger is equipment built for efficient heat transfer from one medium to another. The media may be separated by a solid wall, so that they never mix, or they may be in direct contact. The most common types of heat exchangers



are shell & tube heat exchangers. The others include plate heat exchangers, fin tube heat exchangers, radiator, scraped surface heat exchangers, etc. These can be used as condensers, coolers, sub-coolers, heaters, regenerators, pre-heaters, chiller pasteurizers, re-boilers and evaporators. In terms of the market overview, the global trend towards significantly reducing heat energy costs and the need for increasing energy efficiency will continue to witness a boom in the heat exchanger sector.

Heat exchangers are mainly used by the process industry for a range of heating and cooling duties, and heat recovery applications, with the aim of maximizing process efficiency. The evaporators are used in chemical, pharmaceutical and effluent treatment to obtain a significant reduction in liquid content (to remove as much water as possible) prior to further processing, storage or transportation or as a preliminary stage in liquid-to powder drying process or prior to incineration.



One of the big users of heat exchangers is the food processing industry that includes agriculture, horticulture, plantation, husbandry and fisheries. It also includes other industries that use agriculture inputs for the manufacturing of edible products.

With growing urbanisation, rising disposable incomes, changing lifestyles, increase in nuclear families and the ever-growing population, the demand for ready-to-eat and processed foods is increasing. Foods are processed to increase their shelf life and maintain the product quality and taste. Also the consumer is becoming very health conscious and this has seen a rise in fruit-based drinks and beverages. India is the world's second-largest producer of food after China, and has the potential of being the biggest in the food and agricultural sector. According to the India Food and Drink Report by research analysis firm Research and Markets, by 2012, India's processed food output is likely to grow by 44.2 per cent to touch Rs 4,505 billion. That in itself spells out the scope for heat exchangers and evaporators.

Can you tell us something about HRS Process Systems?

The HRS Group is at the forefront of thermal processing technology globally and a leading heat exchanger specialist with a turnover of Euro 20 million. The revolutionary Ecoflux corrugated tube and Unicus® dynamic scraped surface heat exchanger technology was first introduced by HRS to the process industry. The company offers innovative and cost-effective heat transfer solutions to a vast sector of industries like chemical, petrochemical, food & beverage, paper & pulp, pharmaceutical, fertiliser, edible oil & fats, bio diesel, oil & gas, steel, power, food, beverage, effluent treatment, automotive, etc.

Headquartered in Pune, HRS PSL has three regional offices in Delhi, Baroda, and Hyderabad along with group companies in the UK, Spain, Germany, USA, Peru, and the UAE. HRS is one of the fastest growing heat transfer solution providers and leading turnkey solutions provider for the food/fruit processing industry with a growth rate of over 35 per cent. Its global presence, better reach, innovative technology and design, application engineering all together makes it a successful and reliable player in the existing market. Up to 60 per cent of their business prospers on repeat orders. In the last financial year a major portion of the business was from the pharma and food sectors and the balance from other sectors like edible oil, cement, chemicals, etc.

HRS has sold more than 7,000 heat exchangers in less than a decade and has worked with the top 50 major blue chip companies, engineering consultants, EPC contractors and licensors. We estimate a market potential of Rs 300-400 crore for our innovative products like Ecoflux corrugated tube heat exchangers, shell & tube heat exchangers along with Rs 50-100 crore potential in plate heat exchangers. In the fruit pulp and fruit-based beverage segment HRS estimates a market potential of Rs 250 crore. We have extensive expertise in exotic materials along with excellent service and installation back-up for food processing and plate heat exchangers.

What has been your specific contribution to the food industry?

HRS mainly caters to the food/fruit pulp and fruit-based beverages market. For the food industry HRS offers the innovative Unicus® scraped surface heat exchangers, hygienic pis-



ton pump, aseptic fillers and sterilisers, pre-heaters, pasteurizers, evaporators and integrated process lines for food/fruit processing. HRS provides evaporation systems of tubular and scraped type to obtain the best thermally stable product. We provide turnkey solutions for continuous evaporation system of single, double and multiple effects of capacity up to 20 metric tonnes per hour for fruit pulp, tomato juice and such similar products.

Who are your major clients in India?

Our key customers in the food/fruit/juice processing industry include Parle, Pepsico, Coca Cola, Jain Irrigation, Nestle, ITC, Dabur, Capricorn Food Products Ltd, Food & Inns, Frigerio Conserva Allana Ltd and Rasaa Foods. In the pharmaceutical industry we supply to Dr Reddy's Laboratories, Cipla, Lupin Ltd, Unimark Industries, Apotex Pharma, Eisai Pharmaceuticals, Hikal, Wockhardt, Biocon, Ranbaxy and others. Our cement clients include UltraTech Cement, Dalmia Cement, ACC Ltd, JSW Ipsat Steel while in the chemical industry our products are used by India Glycols Ltd, Bayer Crop Science, Haldia Chemicals, Atul Ltd, Deepak Fertilizers Ltd, Reliance Industries Ltd, Goodlass Nerolac, Nocil Ltd, Jocil Ltd, Syngenta Ltd, Cheminova, etc.

What about exports?

Our exports for the year 2010-11 were to the tune of Rs 14 million with a clientele spread across South America, North America, Australia, South East Asia, Middle East and the Asia Pacific regions.

What is the company's R&D and business focus on?

We have constantly strived to develop innovative technologies to international standards for a diverse range of product applications across a spectrum of industries and have been continuously delivering total integrated solutions for food/fruit processing with emphasis on optimum use of resources with minimal impact on environment. The bottomline is that our products should lead to conservation of energy with sustainability and provide our clients with a competitive edge. We are well-known for our expertise in exotic materials like high nickel alloy used in chemical process, pharmaceutical and food processing sectors. ■