

Larox Peristaltic Pumps: environmental friendly and cost effective

## Consolidation, perseverance and customer support

Larox Flowsys Group is a major supplier of pinch valves and peristaltic pumps. Established in 1993 as a subsidiary of Larox Corporation; this Finnish pump specialist concentrates not only on high quality of the products and good customer relationships but also on research and development as Larox pumps are planned for extremely demanding applications.

Pump Engineer News speaks to Mr Riihimäki, a Vice President of Larox Flowsys, responsible for pump products, to find out more about the company's plans for the future.



Larox Flowsys headquarter

### Experience & know-how

"Peristaltic pumps have been on the market for almost 100 years," comments Mr Matti Riihimäki, Vice President of Larox Flowsys, responsible for pump products in an interview with Pump Engineer News. Over the decades that Larox Flowsys has been developing new technologies for the flow control industry, they have supplied fluid handling technology to over 50,000 installations and gained invaluable knowledge of the market and their customers' processes. This knowledge and experience provides the foundations from which their company continues to grow. Riihimäki: "We focus on abrasive, corrosive and other demanding shut-off, control and pumping applications serving a wide range of process industries worldwide. Our solutions offer substantial savings through improved performance, longer service lifetime and lower maintenance costs." Although company's pump technology is already on a very high level, Riihimäki looks to the future and explains how the company has invested quite considerably in research and development over the past 6 years: "We are continuously on the look out for alternative ma-

terials and technical solutions for our peristaltic pumps. Last year alone we invested 3 % of our net sales to the R&D of our peristaltic pumps. Our research is focused on improving the energy efficiency of our products as well as the length of their operational life to reduce total cost of ownership. We also continuously monitor the markets to find new materials to be used and transferred to our solutions for customers' benefit. With this we can extend the life of a pump considerably as well as reduce maintenance costs."

cubic millimetres per minute up to tens of cubic meters an hour. Our peristaltic pumps can be used in a wide range of demanding applications including transfer, dosing and metering of abrasive, corrosive, viscous and crystallizing media."

In May 2008 this peristaltic pump manufacturer acquired the Finnish JFD Pumps Rotors Oy a specialist in progressive cavity pump service. "The acquisition of JFD means that we can offer a wider range of additional services to our customers and expert



LPP-D pump

In addition to research and development, Larox Flowsys has invested in the completion of its peristaltic pump range and the introduction of new product forms. Riihimäki explains: "Last year we completed our portfolio of peristaltic pumps. Now we are able to deliver the full scale of peristaltic pumps from flow rates of only a few

knowledge of progressive cavity pumps as well as our other pump types. We hope to expand this part of our business further in the future."

### Choosing the environment

In order to strengthen its customer relationships the company has made sure it listens closely to its customers' needs and provides services and products to suit. "It is an art to develop a pump that can distinguish itself from the rest," comments Riihimäki. "All pumps are based on the same technological principles but to be successful, you need to develop a product that fulfils your customers' needs. To this end, we try to always keep abreast of market developments. Current market shifts involve reductions in running costs, energy and of course saving the environment."

Visit Larox Flowsys

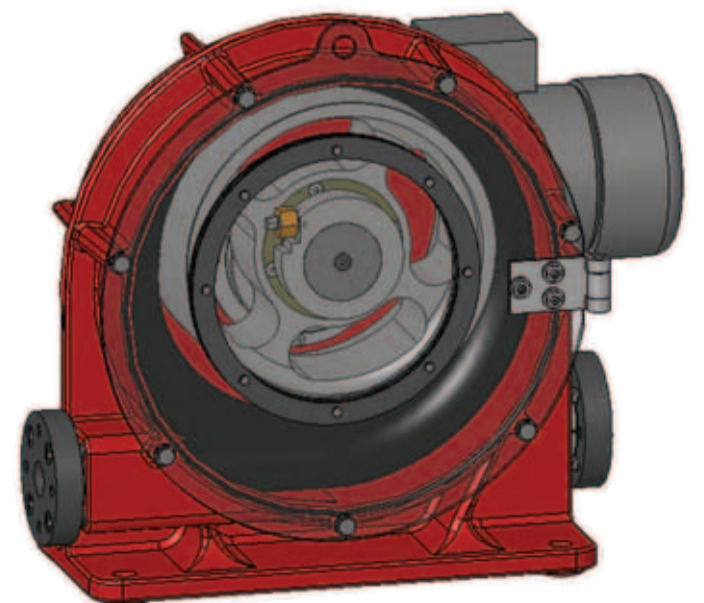
at Achema 2009,  
Frankfurt am Main,  
Germany

11-15 May:  
Hall 5, stand H30 - J35

With the environment high on the agenda, Larox Flowsys manufactures pumps that will help customers keep their impact on the environment to a minimum as Riihimäki explains: "Traditionally our main market has been minerals processing, followed by the mining and energy industries, chemical processing and construction materials. Since recently we can also include the pulp and paper industry as a target market. One of our strongest applications is flue gas desulphurization (FGD) and flue gas handling in the power industry where the environment plays a crucial role. Our pumps are environmental friendly through their superior energy efficiency." With pumps being one of the largest consumers of energy in an industrial plant, one can reduce the plant's impact on the environment by reducing the amount of energy consumed by the pumps. "In our LPP pump family,

the pump rotor rolls along the hose instead of sliding (which is the case in conventional hose pumps). Due to this rolling design, there is no excess friction and therefore also no creation of additional heat, resulting in lower energy consumption. With single rolling rotor principle the running temperature can be restricted to 40 degrees and the pump will therefore be able to produce constant flow rates without the risk of overheating. This principle also lengthens the life of the hose," he adds. "This is because the hose is compressed only once during the 360 degree operating cycle."

Further to savings at the plant, Larox Flowsys also thinks of the environment at the manufacturing stage: "Due to their design, our hoses last longer and have to be replaced less frequently, saving on materials and reducing life-cycle and maintenance costs."



Mr. Matti Riihimäki next to a LPP-T pump

### Pump Engineer News

**Publishing House**  
KCI Publishing B.V.  
P.O. Box 396  
NL-7200 AJ Zutphen  
The Netherlands  
Telephone: +31 575 585 270  
Fax: +31 575 585 099  
sales.vw@kci-world.com

KCI GmbH  
Tiergartenstraße 64  
47533 Kleve, Germany  
Telephone: +49 2821 711 450  
Fax: +49 2821 711 45 69  
kci-deutschland@kci-world.com

**Publishing Director**  
Donald Wiedemeyer  
d.wiedemeyer@kci-world.com

**Editorial Director**  
Sjef Roymans MA  
sjef.h.roymans@kci-world.com

**Advertising**  
Ladan Pourtork  
l.pourtork@kci-world.com

Marcus Rohrbacher  
m.rohrbacher@kci-world.com

Judith Wanjala  
j.wanjala@kci-world.com

**Editors**  
Frank Wöbbeking  
f.woebeking@kci-world.com

Maya George  
m.george@kci-world.com

Marcus Rohrbacher  
m.rohrbacher@kci-world.com

**Subscriptions**  
Erica Riethorst  
e.riethorst@kci-world.com

**Design & Layout**  
Claire Smeets  
claire.smeets@mediamixx.net

**Production**  
Thieme  
Nijmegen, The Netherlands

**Photography**  
Bornemann, CBI, CST,  
Emerson, Grindex,  
Grundfos, Hydraulic  
Institute, ITT, Junty Industries, Larox, Linde,  
Philips, Seepex, Simerics  
Inc., Sulzer, Swagelok,  
Total, Wintershall

The publishers and the authors state that this magazine has been compiled meticulously and to the best knowledge, however, the publisher and the authors can in no way guarantee the accuracy or completeness of the information. The publisher and authors therefore do not accept any liability for any damage resulting from actions or decisions based on the information in question. Users of this magazine are strongly advised not to use this information solely, but to rely on their professional knowledge and experience, and to check the information to be used. KCI Publishing cannot guarantee the accuracy of information provided by participating companies and authorities. The publisher reserves the right to combine, delete and change sections. The publisher reserves the right to edit and re-use (parts of) the articles and to distribute the information by any means. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic or mechanical, photocopying recording or otherwise, without the written permission of the publisher.

©2009 KCI Publishing B.V.

# In the Spotlight



LPP-T80

## Global reach: local support

In response to the question, what is Larox Flowsys' extra added value, Riihimäki replied "our extensive global network and ability to provide local service and local support to all of our customers." The company has its headquarters in Lappeenranta, in the South-East of Finland. It has subsidiaries in Linthicum, Maryland USA, and Anjalankoski, Finland and an extensive sales and service network across more than fifty countries. 90 percent of the company's products are sold overseas and this manufacturer values its ability to provide local customer support. "We can spend a lot of money on developing new products and selling them across the world, but without effective and reliable support, we wouldn't be very successful. This is why we go to extreme lengths to help our cus-

tomers, even deep in the South American jungle or at a minerals mine in Zambia or Australia. Our pumps have to be running smoothly and reliably all of

for spare parts and why we offer our services in local languages; a quality that surely differentiates us from other pump suppliers," says Riihimäki.



LPP-M pump

the time, in any application: which is why we have an extensive global network of subsidiaries and partners

## Low total cost of ownership is the core

According to Mr Riihimäki, the economic situation will



LPP-T in thickener underflow process



LPP-T in brewery

be a definite challenge over the next few years and people are looking even more closely at the costs involved in every part of the process. "But this principle of saving costs is not a new phenomenon, nor will it ever go away and our customers' demands will stay high, which is very good as it keeps us on the right track", says Mr. Riihimäki. "Our customers expect unlimited availability, usability and reliability in combination with low cost of ownership and a lower environmental impact. Larox Flowsys offers its customers a 'total cost of ownership' (TCO) calculation sheet which delivers a deep analysis of life-cycle costs. By providing high quality products; by extending the lifecycle of our products; simplifying installation; reducing the need for expensive maintenance and high energy bills; providing local service and support in the local language, we give our customers the

extra-special attention they each deserve." With this ideology we have managed to grow steadily over the years and we are very sure that it will carry us also in the future.

Even with the economy in turmoil, Larox Flowsys can be very satisfied with the business: year 2008 was the best in its history. Last year the company increased both its net sales and profit. By the successful acquisition of JFD Pumps Rotors the number of personnel also grew almost 10 %. At the moment Larox Flowsys is also working on a large ff 500,000 nickel project in Talvivaara, Finland that is based on heap leaching technology. "Our secret? We remain focused on our core products and services, offering expertise and experience, whilst providing a flexible and reliable range of high-quality products," concludes Riihimäki.

Comparison	LPP	Conventional Hose Pump
Duty 7 m <sup>3</sup> /h, 8450 h/year		
<b>General Comparison</b>		
Nominal size, mm	DN65	DN80
Motor power kW	5	9
Rotation speed, rpm	22	10
Lubricant per hose change, l	1,5	35
<b>Operational Comparison</b>		
Hose life, revolutions	2 050 000	449 700
Hose life, hours	1500	840
Annual spare hose consumption	6	10
Annual lubricant consumption, l	10	350
Annual maintenance time, h	80	150
<b>Annual operating costs, €</b>		
Spare hoses	4140	9230
Electricity	2200	4100
Lubricant	100	3500
Maintenance	550	1050
<b>Total Costs</b>	<b>6990</b>	<b>17880</b>
€/ Pumped m <sup>3</sup>	0,11	0,3

Calculation sheet of LPP pump against conventional hose pump in thickener underflow. The pumped medium is calcium carbonate.

## Facts & Figures

**Established:** 1993  
**Net Sales:** € 20+ million  
**Exports:** 90 %  
**Employees:** 90  
**Certification:** ISO9001:2000  
**Products:** Pinch valves, peristaltic pumps, PC pump service  
**Markets:** Mining and Metal Industry, Non-metal Minerals Processing, Chemical Process Industries, Food and Pharmaceutical Industries, Pulp and Paper Industry, Water, Wastewater and Effluent Treatment, Cement Industry, Steel and Iron Industries, Oil and Offshore Industries, Energy Industry

**Main Market Areas:** Europe, North and South America, Australia  
**Standard technical features:** Dry run capability and self priming; exact flow per cycle; sealless pumps that will not get damaged even if run dry for a long period of time

## Bulletins

### National Oilwell Varco acquires

National Oilwell Varco, Inc. has acquired ASEP Group Holding BV and Anson Ltd. ASEP, based in the Netherlands, develops and manufactures well service equipment, including wire-line units, cranes, coiled tubing equipment, pressure control products, and automation products. ASEP has four manufacturing locations, and operations in nine countries. Anson, based in the UK, manufactures flowline equipment, manifolds, valves, swivel joints, hammer lug unions, and wellheads, which will complement NOV's Mission pump and fluid expendables products. Anson has one manufacturing location, and operations in five countries.

### Parker Hannifin acquires

Parker Hannifin has announced that it has acquired Aqua Pro, the manufacturer of reverse osmosis filtration systems for marine applications. The company said the acquisition will enhance its diverse range of products and services for the marine sector. Aqua Pro is also known as Village Marine Tec and Offshore Marine Laboratories, with sales and service locations in California, Florida, Hawaii, Virginia and Washington. The company sells to original equipment manufacturers including boat and ship builders, independent distributors, and end users. Aqua Pro's product line includes reverse osmosis systems for on-board submarines and land applications, as well as offshore oil rigs, work boats, fishing vessels and pleasure boats.

### Emerson opens Dubai facility

Emerson recently celebrated the official opening of its new regional headquarters in Dubai to better serve its growing portfolio of business in the Middle East. In its fiscal 2008, Emerson posted sales of USD 868 million in the Middle East region. The company hopes to surpass USD 1 billion in the near future. Emerson has more than 300 employees working out of the location in the Jebel Ali Free Zone. The facility consists of 80,000sq/ft of office space and 50,000sq/ft of light industrial manufacturing and warehouse space, where Emerson assembles and tests its products and advanced technology solutions prior to shipment.