

HYDRORAM AB

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Branch: Hydraulic calculation in the field of complex pipe system.

Summery

We use and develop programs for steady state and transient flow.
The programs are used by us and owners of larger district heating (and cooling) systems.
We also work in fields as mining, black water, oil and process industry.

Examples of work

Hydraulic analyses of present or future district heating (and cooling) systems.
The systems are test driven in models that presents the hydraulic behaviour of the systems in various points of operation. Problems as water hammers are solved as good as possible with our knowledge. More then half of the amount of district heating water in Sweden is in our computer models. About two thirds of the power in district cooling systems in Sweden is simulated by us.

Surge analyses (water hammer) in various systems. In best case we analyse and prevent damages, but sometimes it's a matter of accident commission.

Education about district heating (and cooling) systems. In round figures a thousand people have had our courses. Most of them are operating staff but also consultants from companies as FVB, SWECO and ÅF have been educated.

Internationell missions

2017 Lusail, Qatar, 1100 MW district cooling system for Marafeq.
2016 Hohhot, China, 2.3 GW district heating project, through Termoekonomi.
2016 Shijiazhuang, China, 2.5 GW district heating project, through Termoekonomi.
2016 Cayuga, USA, Water intake, through Makai Ocean Engineering.
2015, Tara Mine, Ireland, Mine water, Boliden.
2015, Odessa, Sewage pumping, through Pios Ekoklar.
2014 Jinan, China, 1230 MW district heating project, through Termoekonomi.
2012 Lipa Swamp, Colombia, Sand/Slurry system through Flygt pumps.
2011 Lamma Island, China, sewage water through Flygt pumps.
2011, Lusail, 1100 MW district cooling system, through Capitol Cooling.
2008, Helsingfors, 1000 MW waste heat from nuclear power plant, for Fortum
2007, Amsterdam, district cooling, through FVB and Capitol Cooling.
2005, Bahrain, water intake for district cooling, through FVB/Kattner.
2003, Bandar abbas, Iran, black water, through ABS pumps.
2001, Baltimore, district cooling, through FVB/Kattner.
1998, Windsor, Canada, district cooling, via FVB/Kattner.
1998, Riga, Latvia, district heating, through FVB.
1998, Kralkizi and Gökzu, Turkey, fresh water supply, through ABS pumps.
1998, Istanbul, Turkey, fresh water supply, through ABS pumps.
1997, 14 Tunisian pump stations for sewage water, through Kvaerner Water.
1996, Chicago, USA, district cooling, via FVB.
1995, Doga, Turkey, district heating, through Gothenburg Energy International.
1992, Edmonton, Canada, district heating and cooling, through FVB.

Staff

Ola Rossing

Education: Bachelor of Science, Chalmers University of Sweden (CTH).
1987-1989 Science engineer, flow machinery, CTH
1990-2003 Ola Rossing AB
2003 - Hydroram AB

Gunnar Larsson

Education: Phd on dynamic of district heating systems , CTH.
1999-2001 Halftime as researcher, thermo and flow dynamic, CTH.
1999-2001 Halftime on Ola Rossing AB
2001-2003 Ola Rossing AB
2003 - Hydroram AB

Customers producing energy :

Affärsverken i Karlskrona AB
Borås Energi AB
EON
Falun Energi och Vatten AB
Fortum Värme samägt med Stockholmsstad AB
Gräninge Energi AB
Göteborg Energi AB
Halmstad Energi AB
Jämtkraft AB
Jönköping Energi AB
Kalmar Energi AB
Karlshamn Energi AB
Karlskoga Energi AB
Kungälv Energi AB
Landskrona Energi AB
Lundsenergikoncernen AB
Norrenergi AB
Orust Kommun
Sigtuna Energi AB
Skellefteå kraft AB
Söderenergi AB
Telge Energinät AB
Trollhättan Energi AB
Uddevalla Energi AB
Umeå Energi AB
Varberg Energi AB
Vattenfall AB
Växjö Energi AB
Öresundskraft AB

Other customers :

ABS pumps International AB
Birka Teknik & Miljö AB
Boliden AB.
Capitol Cooling
Chalmers University of Technology
Falköpings Kommun
FVB AB
Hydroplast AB
Högskolan i Borås
Industriarmatur AB
IUC Öst AB
LKAB
Midroc Engineering AB
Outotec AB
Port of Gothenburg
PREEM AB
Pöyry Sweden AB
Ramböll AB
Ringhals AB
Rintekno AB
STF AB
Stockholm Vatten AB
Svenskfjärrvärme AB
SWECO Industry AB
SwedPower AB
VA-Ingenjörerna AB
VVS-Kontroll AB
ÅF AB