1(8)



Reference list – Chemitec Consulting Oy and CT-Systems Oy

${\bf Automation, \, electrification \, \, (selected \, references)}$

Year	Customer	Subject	Service
2015 –	Ecolution Oy	TEKES project Aerobic biowaste treatment technology Full-scale pilot reactor	Procurement planning of electrification, instrumentation and automation
2014 –	Oy Turku Energia Ab	Luolavuori pellet boiler plant (40 MW)	Procurement planning of electrification, instrumentation and automation
2014 –	Hyvinkään Lämpövoima Oy	Veikkari pellet boiler plant (10 MW)	Procurement planning of electrification, instrumentation and automation
2014 –	Econet Oy	Sortohaka wastewater treatment plant	Electrification
2014 –	Japrotek Oy/ Kemira, Brazil	Sodium chloride crystallization unit	Field equipment procurement and operation description
2014 –	Fontaine Engineering GmbH, Germany	MWR Evaporator unit (wastewater treatment)	P&ID drawing and turnkey of electrical automation
2014	Ekokem Oy	Pumping stations for district heating water	Turnkey delivery of electrical automation
2012 – 2014	Oy Forcit Ab	Acid separation	Process and electrical automation design, delivery, configuration and commissioning
2012 – 2013	Fortum Oy	Heat pump plant's basic engineering	Procurement planning of process, instrumentation and automation
2012 – 2013	Oy Turku Energia Ab	Heat pump plant LPL4	Procurement and basic planning of electrical automation

2(8)



Chemitec
consulting oy

Year	Customer	Subject	Service
2012	Oy Fermion Ab	Process changes to a VOC burning plant (scrubber, heat recovery, district heating)	Electrical automation design, delivery, configuration and commissioning
2012	Oy Woikoski Ab	Purification oh hydrogen gas	Procurement and basic planning of electrical automation
2011 – 2014	Oy Forcit Ab	Explosives plant FPX	Delivery of automation system, configuration and commissioning
2011 – 2013	Valio Oy	Procurement planning of a boiler plant	Procurement planning of electrical automation and project supervision
2011 – 2012	Keitele Energy Oy	Procurement planning of a boiler plant	Procurement planning of electrical automation and project supervision
2011 – 2012	Jalasjärven Lämpö Oy	Procurement planning of a boiler plant	Procurement planning of electrical automation and project supervision
2011	Windsor Sathyam Ltd, India	MVR Evaporator: prevention of precipitation in a high speed blower	Design, configuration and commissioning
2010 – 2011	CP Kelco China	CMC Mill, Taixing, China Ethanol distillation unit	Electricity and automation engineering
2010 – 2011	Smart Salt Oy	Reduced sodium salt Production plant	Electricity and automation engineering, project supervision
2010	Keitele Energy Oy	Biofuels combustion CHP power plant (5 MW _e / 15 MW _{th})	Preparation of invitation to tenders
2010 –	Ecolution Oy	TEKES project Aerobic biowaste treatment technology	Automation engineering
2010	Rinheat Oy / Ekokem Oy / Fermion Oy	VOC gas burning plant	Expert services



Year	Customer	Subject	Service
2009 – 2010	Logstor Oy, Saarijärvi	Extruder heat recovery	Expert services
2009 – 2010	Nivalan Kaukolämpö Oy	Power plant (15 MW DHW / 5 MW El)	Evaluation of tenders, expert services related to automation and electrification
2009 – 2010	Keuruun Lämpövoima Oy	Power plant (15 MW DHW / 5 MW El)	Evaluation of tenders, expert services related to automation and electrification
2009	Oy Forcit Ab, Hanko	FPX unit	Configuration of automation, commissioning
2008 – 2010	Rinheat Oy / Alrec Oy / M-Real Oy	Black liquor burning plant (8 MW Steam)	Electricity and automation engineering, Safety logic delivery, programming, commissioning
2008 – 2010	PCC Rokita Poland	MCAA plant (Monochloroacetic Acid)	Basic Engineering of instrumentation, automation and electrification
2008 – 2010	Kemijärven Kaukolämpö Oy	Power plant (20 MW DHW / 5 MW El)	Evaluation of tenders, expert services related to automation and electrification
2008 – 2009	Rinheat Oy / Ekokem Oy / Fermion Oy	VOC gas burning plant (5 MW Steam)	Electricity and automation engineering, DCS delivery, programming, commissioning
2008	CP Kelco Taixing China	Ethanol distillation unit	FAT tests of automation
2007 – 2009	Turku Energia Oy	Heating pump plant (District heating water / District cooling water) (20 MW DHW / 13 MW DCW / 6 MW El)	Evaluation of tenders, expert services related to automation and electrification
2007 – 2008	Ekokem Oy	District Heating Water Pump Stations Riihimäki - Hyvinkää	Electricity, instrumentation and automation "Turn key delivery"
2007	Ekokem Oy	Water purification plant	Electricity and automation engineering, programming, commissioning

Automation, electrification



Reference list 31.10.2015 4(8)

Year	Customer	Subject	Service
2006– 2007	Kiviristin Lämpö Oy	Power plant (20 MW DHW / 5 MW El)	Evaluation of tenders, expert services related to automation and electrification
2006	Alexela Terminal As Paldiski	Waste gas burning plant	Electricity and automation engineering, DCS delivery, programming, commissioning
2005– 2006	Forcit Oy	Nitroglycol plant	Electricity and automation engineering, commissioning
2004	Forcit Oy	Latex dispersion plant	Electricity and instrumentation engineering
2004	Ekokem Oy	Riihimäki plant	Process and control loop optimization
2004	Jyväskylän Energiantuotanto Oy	Rauhalahti biofuel power plant (295 MW _{fuel}) Flue gas condensing and heat recovery unit (60 MW _{th})	Evaluation of tenders, expert services related to automation and electrification
2004	Hadwaco Ltd Oy	US-Pilot evaporator	Electricity and automation engineering, commissioning
2004	Nexplo Oy	Vihtavuori, NGL-nitrification process	Electricity and automation engineering, commissioning
2004	Tampereen Automaatiosähkö Oy	Artekno Oy, Kangasala Injection moulding machine	Electricity and automation engineering, commissioning
2003	Noviant B.V.	CMC Mill, Nijmegen, Netherlands Modification and extension of solvent regeneration plant	Electricity and automation engineering, commissioning
2003	Baltic Oy	Chemical storage, Rauma	Electricity and automation engineering, commissioning
2003	Gaudium Oy	Tahkoluoto, Pori Fuel storage	Electricity and automation engineering

Automation, electrification Reference list



31.10.2015 5(8)

Year	Customer	Subject	Service
2002	Rinheat Oy	Ekokem Oy, Riihimäki Ref. oil evaporator	Electricity and automation engineering, commissioning
2002	TM-Palvelu Oy	Neste Sia, Riga, Latvia Automatic train wagon unloading system	Electricity and automation engineering, commissioning
2002	Noviant CMC Oy (Metsa Specialty Chemicals Oy)	CMC Mill, Äänekoski Finland Steam evaporator	Electricity and automation engineering, commissioning
2002	Hadwaco Ltd Oy	Ebara, Japan Two Evaporators	Electricity and automation engineering
2002	Skanska Oy	Fortum Oy, Kilpilahti Demineralisation plant	Electricity and automation engineering, commissioning
2002	Skanska Oy	Stora Enso Oy, Summan tehtaat Demineralisation plant	Electricity and automation engineering
2001– 2003	Conox Oy	Celsur, Spain Black liquor evaporator and oxidizer, causticizing	Electricity and automation engineering, commissioning
2001	Rinheat Oy	M-Real, Joutseno Pulp Black liquor evaporator	Start-up of automation loops
2000– 2001	Hadwaco Ltd Oy	Nexans, France Sulphuric acid evaporator	Electricity and automation engineering
1999– 2002	Noviant CMC Oy (Metsa Specialty Chemicals Oy)	CMC Mill, Äänekoski Finland Modification and extension of solvent regeneration plant	Electricity and automation engineering, commissioning
1999– 2001	Fortum Engineering Ltd	Angarsk Electrolysis and Chemical Complex, Angarsk Russia Conversion plant of depleted uranium hexafluoride	Electricity and automation engineering
1999– 2000	Finnish Chemicals Oy	Fine Chemical Plant, Äetsä Finland Modification and extension of sodium borohydride plant	Electricity and automation engineering

Automation, electrificationReference list



ference list 31.10.2015 6(8)

Year	Customer	Subject	Service
1999– 2000	Finnish Chemicals Oy	Äetsä, Finland Modification and extension of sodium borohydride plant	Electricity and automation engineering
1999	Din Oy	Kemira Oy, Siilinjärvi Finland Boiler burner control	Electricity and automation engineering, commissioning
1998	Sandvik Ab	Stockholm, Sweden Methanol recovery process	Electricity and automation engineering
1998	Hadwaco Ltd Oy	Gruvön, Sweden Waste water evaporator	Electricity and automation engineering, commissioning
1998	Rinheat Oy	UPM, Kajaani Finland 3R heat recovery plant	Electricity and automation engineering, commissioning
1998	Valmet Fisher- Rosemount Oy	UPM, Valkeakoski Finland Energy measurement of district heating	Automation engineering, commissioning
1998	Hadwaco Ltd Oy	Mäkelä Alu Oy, Alajärvi Finland Waste water evaporator	Electricity and automation engineering, commissioning
1998	Rinheat Oy	Ekokem Oy, Pori Finland Waste water stripping	Electricity and automation engineering, procurement
1997– 1998	Metsa Specialty Chemicals Ab	CMC Mill, Karlstad Sweden Modification and extension of ethanol regeneration plant	Automation engineering, commissioning
1996– 1999	Finnish Chemicals Oy	Fine Chemical Plant, Äetsä Finland Modification and extension of fine chemical plant	Electricity and automation engineering
1996– 1998	Patria Lapua Oy (Nexplo Oy)	Vihtavuori Plant, Laukaa Finland Production and recovery plant for ethanol and diethyl ether	Automation engineering, programming and commissioning
1995	Haminan Satamalaitos	Hamina Finland Extension of oily water treatment unit	Electricity and automation engineering, procurement

Automation, electrification Reference list





Year	Customer	Subject	Service
1994– 1995	Sonmarin AS	Chemical Trading Terminal, Tallinn Estonia	Electricity and automation engineering
1994	Oy Transkem Ab	Chemical Trading Terminal, Mussalo Finland. Steam system	Automation engineering, procurement
1994	Amri Oy/Devexor Oy	Clean water plant	Electricity and automation engineering, programming and commissioning
1994	Kauhavan Kaukolämpö Oy	District heating network	Planning of control diagrams
1994	A. Ahlstom Oy/ Graab Ab	Heat pump	Electricity and automation engineering
1993	Ekokem Oy	Pori Finland Waste oil treatment plant, recovery of EDTA	Electricity and automation engineering, commissioning
1993	Pantek Oy/Maitokaari	Electrical systems	Electricity engineering
1993	Oy Transkem Ab	Rauma Finland Chemical storage	Revamp of electrical, automation and fire alarm systems, procurement and commissioning
1992	Oy Transkem Ab	Mussalo, Kotka Finland Chemical storage, Hot oil boiler	
1992– 1993	Metsä-Serla Chemicals Oy	CMC Mill, Äänekoski Finland CMC-90 Project (New CMC Plant), Distillation Unit	Automation engineering, commissioning
1992– 1993	Aquamax Oy	MVR-evaporator	Electricity and automation engineering, commissioning
1991	Neste Oy	Modernization of waste water plant	Automation engineering

Automation, electrification



Reference list 31.10.2015 8(8)

Year	Customer	Subject	Service
1990– 1992	Ahlsrtom Machinery Oy/Thermo Tech	Hoogovens Ijmuinden, The Netherlands Heat Transformer	Electricity and automation engineering, commissioning
1989– 1990	Demitech Engineering Oy	Kemi Oy, Kemi Finland Water purification plant, Damatic XD	Automation engineering and programming, commissioning
1989– 1990	Oy Mercantile Ab	Chemical Trading Terminal, Phase II, Mussalo Finland	Electricity and automation engineering
1988 – 1989	Valmet Prosessiautomaatio	Martinlaakso power plant, Vantaa Finland Turbine 2, Damatic	Automation engineering and programming, commissioning
1988	Oy Alfa Laval Zeta Ab	A. Ahlstrom Oy, Caledonian Paper Demineralisation plant	Automation engineering
1987	Valmet Prosessiautomaatio	Rautaruukki Oy Chimney sweeping, gas distribution	Commissioning of automation system
1978	Oy Alfa Laval Zeta Ab	Kyrö Oy Demineralisation plant	Automation engineering
1987	Jaakko Poyry Oy	Enso Gutzeit Oy, Kotka Finland Coating plant and fluidized beds	Automation engineering, commissioning