

Project Logo

INTHEAT

List of beneficiaries:

PIL Ltd: Professor Robin Smith:
info@processint.com

Cal Gavin Ltd: Mr Martin Gough
info@calgavin.com

Akstionernoje Obschestvo 'Sodrugestvo-T': Professor Petro Kapustenko,
sodrut@gmail.com

Macatek GmbH: Dr Tomas Weimer,
apparate@makatec.eu

Oikos, svetovanje za razvoj, d.o.o.: Dr Anes Durgutovic,
info@oikos.si

The University of Manchester: Dr Nan Zhang,
nan.zhang@manchester.ac.uk

Bath University: Professor Barry Crittenden,
B.D.Crittenden@bath.ac.uk

University of Paderborn: Professor Eugeny Kenig,
eugeny.kenig@upb.de

Pannonia University: Professor Jiri Klemes,
klemes@cpi.uni-pannon.hu



Enhancing performance and solving problems of tubular heat exchangers

hiTRAN thermal enhancement systems substantially increase tube-side heat transfer by changing the fluid dynamics. Installed in more than 15000 exchangers worldwide, these systems deliver the following technical and economic benefits;

- increased heat transfer co-efficient
- increased production and longer run times
- reduced processing and maintenance costs
- reduced energy costs
- reduced reaction, deposition and crystallisation fouling
- improved product quality
- increased plant operability
- lighter more compact designs
- lower cost of new plant

HEATERS • COOLERS • CONDENSERS • VAPOURISERS • BOILERS
REBOILERS • THERMO-SYPHON REBOILERS • REACTORS
ECONOMISERS • FALLING FILM EVAPORATORS
CLIMBING FILM EVAPORATORS • CHILLERS • DE-VOLATILISERS
INTERCOOLERS • AFTERCOOLERS • OXIDISERS...

Benefits – new exchangers:

- Reduced number of shells/bundles
- Reduced exchanger size
- Longer on-stream time
- Performance maintained even under turn-down conditions
- Lower maintenance – lower operating cost
- Lower capital cost

Benefits – retro-fit:

- Increased throughput at same terminal temperatures
- Variable/selectable performance to meet process need
- Re-use of existing equipment – low capital expenditure
- No increase in plot space
- Easily and quickly installed
- Short pay-back time

Market Sectors:

- Oil exploration and production
- Gas production, transmission and treatment
- Oil refining
- Petrochemical and downstream processing
- Organic and inorganic chemicals
- Plastics, polymers and resins
- Speciality and fine chemicals
- Fertilisers and agro-chemicals
- Food processing and pharmaceuticals
- Refrigeration and cryogenics
- Power generation and distribution

www.calgavin.com

CALGAVIN
Process Intensification Engineering