ABOUT CONSORTIUM

The consortium “RUBIN-AUTOMATION” consolidates professional experience of key specialists in the field of automated control systems.

- INVESTIGATION
- DESIGNING AND INSTALLATION
- MONITORING UTILITIES
- UTILITIES
- SCIENCE AND EXPERTISE
- TRAINING AND PROFESSIONAL DEVELOPMENT

SCIENTIFIC-INDUSTRIAL ENTERPRISE
«RUBIN»

A pool of scientists, experts, designers, practical engineers, highly skilled workers as well as specialists in various fields of expertise connected with issues of providing effective control over automation objects.

KRUG SCIENTIFIC PRODUCTION COMPANY

An engineering centre engaged in a wide range of projects and services from making draft proposals, designing and coordinating the project appraisal to actualizing and maintaining automated systems.

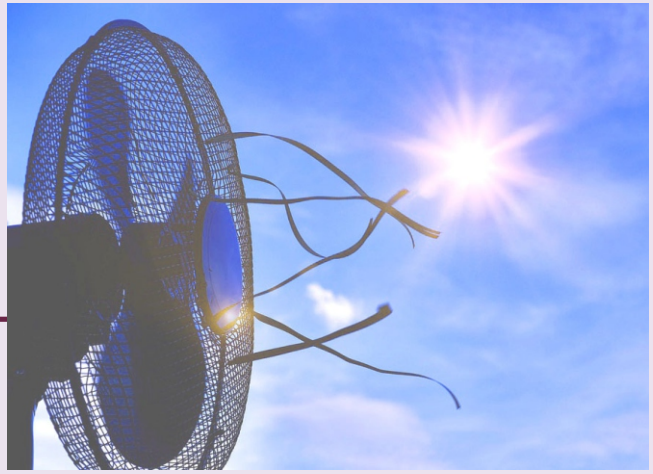
RUBIN...
AUTOMATION

RUBIN-AUTOMATION
2, Baidukova Str.,
440000, Penza, Russia
Tel.: +7 (8412) 20-89-98
E-mail: 1400@npp-rubin.ru
www.automation.npp-rubin.ru

CONSORTIUM RUBIN-AUTOMATION

Professional solutions
– basis for development!

VENTILATION AUTOMATED CONTROL SYSTEM



Automation objects

- *Forced, exhaust, plenum-and-exhaust ventilation for administrative and commercial buildings, premises of industrial enterprises.*

Goals of introduction

- *Reducing costs connected with energy supply and using ventilation systems.*
- *Improving quality control of the air exchange process.*

RUBIN
AUTOMATION

Ventilation automated control system

BUILDING AUTOMATION

System functions

- *Collecting and processing on-line information from sensors and actuating devices on the measures modes and test parameters of utilities.*
- *Displaying on-line information in the form of mnemonic diagrams, trends on AWS monitors according to the users' access rights.*
- *Logging and accumulating system events.*
- *Warning on failures (process signaling).*
- *Control of ventilation installations (automatic and manual remote).*
- *Keeping the preset air temperature via a channel sensor using built-in PID-control.*
- *Cascade control using a room temperature sensor.*
- *Preheating the hot water heater of the ventilation system.*
- *Monitoring operating modes of ventilation installations.*
- *Checking the ventilation installation air filter clogging.*
- *Operation in the automatic mode according to the schedule.*
- *Diagnostics of validity of received information.*
- *Archiving parameters history.*

System features

- *Creating a full-fledged monitoring and control system with an option of continuous tracking the ventilation system operation.*
- *Presenting the operating personnel with timely and quality information on the course of the process, the state of utilities and control technology.*
- *Reducing a probability of the operator's erroneous actions due to timely presentation of valid information visually.*
- *Increasing the ventilation equipment operation life due to prompt response to failures in the system.*
- *Reducing energy resources consumption due to implementation of automatic regulation and control.*
- *An option of scaling and building-up the system composite function, by Customer's efforts among other things.*
- *Minimizing costs on performing engineering work by the Customer (only the project adjustment is required).*
- *Long-term storage of accumulated data.*
- *System "price – quality" optimal ratio.*

Components

- *The first (lower) level:*
  - *signal transmitters;*
  - *actuating mechanisms.*
- *The second (middle) level:*
  - *controllers C2000-T ensure performance of functions of monitoring, regulation and control of utilities in the scope sufficient for supporting operation of all three types of ventilation systems (forced, exhaust, plenum-and-exhaust) in the proportion of "one system – one controller". For exhaust ventilation there is an option to connect two ventilation installations to the controller.*
- *The third (upper) level:*
  - *an operator's automated workstation based on SCADA KRUG-2000 functionally combined with an archive server.*

Implemented projects

- *"AQUANOVA RUS", Dubna, Moscow obl.*
- *Administrative facility No 1 of OJSC "Novoship", Novorossiysk.*