



Development  
Engineering  
Realisation



## » Proudly delivering engineering services for almost 20 years

### OUR CLIENTS:

**ALSTOM | ArcelorMittal | BONATRANS GROUP | CEZ Group | Danstoker | EVRAZ  
Siemens | Stampa | VEOLIA | Vítkovice Machinery Group | VYNCKE**

*We provide our services to manufacturers, suppliers, boiler room owners & engineers, metallurgical operations, chemical operations and paper mills.*

## » We provide:

*Feasibility studies, designs, technical calculations and workshop documentation for (partial list):*

- › Pressure parts for steam and hot-water boilers (boiler piping, membrane walls, exchangers, steam air heaters, pressure locks for low and high pressure steam pipelines, boiler drums, etc.)
- › Combustion applications, which include low NOx pulverized coal burners (for both lignite and hard coal)
- › Waste heat boilers, HRSG boilers
- › Ducts (flue gas, air, dedusting)
- › Piping (steam, water, chemicals)
- › Steel structures (halls, piping bridges, technological equipment, etc.)
- › Foundations for standalone machines (machine-tools, milling machines, presses, etc.)
- › Foundations for production lines

## We perform:

- › Technical calculations (static, expansion, strength, heat, hydraulic, aerodynamic)
- › CFD modelling (Computational Fluid Dynamics)
- › Technical support for boiler/boiler house operators
- › Combustion process optimisation for the reduction of NOx emissions in flue-gas or heat operating temperature design for application of additives (SNCR, SCR, etc.)
- › Measures to improve steam boiler efficiency
- › Studies to assess the impact of fuel quality changes on boiler operating parameters
- › Assessment of steam boiler drums (including consulting services on the appropriate technology for repairing drum surface cracks)

- › Optimisation of coal mills
- › Strong IVITAS know how in the area of combustion processes and fuel preparation
- › Fossil fuel tests for selection of the optimal combustion process (for new boilers) and optimisation of operation for existing ones. Tests are run at the purpose-built, IVITAS combustion test stand.
- › Inspection and adjustment of suspension for technological elements and equipment

## We deliver:

- › Low Nox pulverized coal burners
- › Beater wheel mill elements (beaters)
- › Silencers
- › Heat exchangers (economizers, pre-heaters, air-heaters, etc.)
- › Pressure locks for high- and low-pressure steam pipelines



*Our documentation is prepared in accordance with EN requirements. IVITAS is ISO 9001:2009 and ISO 27001:2014 certified.*



*We utilize the following software: AutoCad, Inventor, PDMS, Tekla Structures, ANSYS Fluent, Scia and CaePipe.*

**Please visit our website at [www.ivitas.cz](http://www.ivitas.cz) or e-mail us at [ivitas@ivitas.cz](mailto:ivitas@ivitas.cz) for further information.**