



The Experts in Energy Supply



COMPANY PROFILE

The experts in energy supply - Your trust is our success!

Company information

HEAT is an international group of companies, which has its main focus in the sectors metallurgy, power plants as well as oil and gas exploration. We plan, deliver and support municipal and industrial plants with our own products, systems and process technologies. Other emphases of the group are found in the area of environmental technology and equipment for the production of renewable energy.

HEAT Group is an internationally successful array of companies, which stands for:

- flexibility and customer-tailored solutions
 - innovation and technology leadership
- based on in-house R&D capabilities and state of the art manufacturing facilities.

We strive for a leading position in the markets with the aim to improve our sophisticated products continually in order to serve our partners and customers always with the highest standards.

By visions and goals we created a basis to ensure a successful future for our companies. We have defined targets and parameters by which we measure our success.

Our targets still are:

- superior customer care
- fair partnership and
- staying on top through continuing growth



Some product and solution references and examples

Gas Pressure Regulators for Households

VillageFlow

two stage gas pressure regulator
 + market leader in adaptability of flow rate
 + equipped as standard with Safety Shut-off Valve

optional equipment:

- flow limiter
- safety diaphragm
- low pressure cut-off device
- Thermal Safety Device

$P_{in\ max} = 10\ bar$
 $P_{out} = 20 \div 300\ mbar$
 $Q_{max} = 250\ m^3/n/h$



EKB

two stage gas pressure regulator
 + most flexible in design execution
 + equipped as standard with Safety Shut-off Valve

flexible assembly:

- low pressure cut-off device
- Safety Blow-off Valve
- Thermal Safety Device

$P_{in\ max} = 10\ bar$
 $P_{out} = 13 \div 100\ mbar$
 $Q_{max} = 25\ m^3/n/h$



FlatFlow

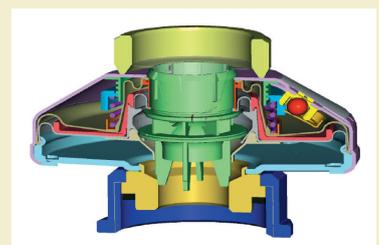
residential regulator for direct pressure regulating at the inlet of gas meters

- + compact design
- + pre-set outlet pressure
- + fireproof up to 650°C
- + safety diaphragm

optional equipment:

- low pressure cut-off device

$P_{in\ max} = 200\ mbar$
 $P_{out} = 20 \div 33\ mbar$



Some product and solution references and examples

Gas Pressure Regulators



CityFlow
 adaptable in- and outlet flange
 simple design, spring loaded

$P_{in\ max} = 20\ \text{bar}$
 $P_{out} = 0,02 \div 4,5\ \text{bar}$
 $KG_{max} = 10.400$



CityPilot
 versatile scope of application,
 adaptable in- and outlet flange
 pilot operated, fail to close and
 fail to open versions

$P_{in\ max} = 100\ \text{bar}$
 $P_{out} = 0,02 \div 45\ \text{bar}$
 $KG_{max} = 10.100$



ExFlow
 electric operated gas regulator
 selectable pressure ranges
 pressure and / or flow rate control

$P_{in\ max} = 100\ \text{bar}$
 $P_{out} = \text{selectable}$
 $KG_{max} = 70.000$



G 52
 low flow rates possible at high
 up- / downstream pressure ratio

$P_{in\ max} = 150\ \text{bar}$
 $P_{out} = 0,02 \div 45\ \text{bar}$
 $KG_{max} = 9.450$



G 56 / G 57
 high flow rates possible
 available in different designs

$P_{in\ max} = 100\ \text{bar}$
 $P_{out} = 0,02 \div 75\ \text{bar}$
 $KG_{max} = 70.000$

Some product and solution references and examples

Safety Devices



CityStop

Safety Shut-off Valve for gas pressure regulating stations:

- + large setting range
 - over pressure release: 0,013 ÷ 90 bar
 - under pressure release: 0,005 ÷ 72 bar
- + closing in less than one second
- + variable flange connections
- + manual release at trip unit
- + easy reengaging through internal bypass

Nominal width: up to DN150

Nominal pressure: up to PN100



Safety Shut-off Valve G 31.40

interrupts the gas flow if

- the downstream pressure exceeds or
- falls below its permitted rate

- + large setting range for pressure release:
 - over pressure release: 0,02 ÷ 90 bar
 - under pressure release: 0,01 ÷ 72 bar
- + closing in less than one second

Nominal width: up to DN400

Nominal pressure: up to PN100



Safety Shut-off Valve for warm water G 42

used to protect warm water systems against unacceptable pressure (gas leakage into the water side of a heat exchanger)

- + large setting range from 2 up to 70 bar
- + low pressure drop
- + remote monitoring available

Nominal width: up to DN200 / 8"

Nominal pressure: up to PN250 (class 1500)

Some product and solution references and examples

Gas Technology



Gas regulating and metering stations

- are put on stream for communal and industrial natural gas supply systems
- are designed to accommodate all gaseous media of all pressure ranges
- are customized, on skid modules, erected in containers

MONOBLOCK: The compact, multi-function system for natural gas pressure reducing stations

- up to 100 bar
- up to 20.000 m³n/h

MONOBLOCK includes:

- Filtering system and gas pre-heating
- Safety shut-off valves
- Gas pressure regulator(s), pilot controlled
- Noise reduction at the valve
- optional metering system possible



Gas drying systems:

based on absorption / glycol technology (TEG)

- most common drying method in natural gas plants
- the mass transfer takes place in an absorber on the very large surface area of the structured packings in counterflow between glycol and natural gas
- glycol absorbs water from the gas and is dried thereby
- rich glycol is thermally regenerated and flows back to the absorber

Gas dehydration systems:

based on low temperature technology LTS plants are build for:

- lowering the hydrocarbon and/or water dew point
- reducing the gas temperature



Some product and solution references and examples

Pressure Vessel Engineering



Gas Cleaning:

- Filter & Separators including all attendant facilities; e.g.
- discharges
 - pressure difference controlling
 - hydraulic quick-acting
 - platforms, navigable devices

Filter - Separator:
Flow rate: 1.200.000 m³/h
Design pressure: 85 bar

Gas-Preheating; e.g.

Heat Exchanger

- vertically mounted
- horizontally mounted

Double-tube Safety Heat Exchanger

Gas Preheaters

Electrical Preheater



Horizontal Preheater:
Flow rate: 80.000m³/h
Design pressure: PN100



Filter-Separator:
Flow rate:491.000 m³/h
Design pressure: 84 bar

Other Products/Solutions:

- Pig launcher/receiver
- Quick opening closure
- Pressure vessels



Pig Trap: DN 1600, PN100

Some product and solution references and examples

Ammonia Supply Systems



Unloading and transfer stations

- for aqueous or anhydrous ammonia
- for truck, railcar or ship unloading and forwarding
- with hoses or swivelling arms and/or breakaway couplings
- completely pre-mounted stations with internal cable connections to junction boxes and control panels

Storage and peripheral systems

- carbon steel tanks for anhydrous ammonia
- stainless steel horizontal, vertical or flat bottom, single or double walled tanks for aqueous ammonia
- all safety and emergency peripherals
- sump pump systems
- sprinkling systems for tank cooling and ammonia vapour precipitation
- gas detection systems
- absorption tanks
- MCC's, control cabinets for hard wired and PLC logic



Anhydrous and aqueous ammonia conditioning

- vaporization with steam, electricity, flue gas
- flow control and metering lines
- dilution air supply, heating and metering
- static ammonia-air mixing
- skid mounted with internal cable connections to junction boxes and control panels

HEAT aqueous ammonia vaporizers

Advantages:

- efficient ammonia superheating
- compact size, due to very high heat transfer coefficient
- no condensate hammering
- no requirement for thermal expansion compensation
- easy accessible heating surface for inspection and cleaning of accumulated ammonia impurities (scaling)



Some product and solution references and examples

Bioenergy and Environmental Technology



ANLAGENBAU

The specialist in air purification and heat recovery

E.U.T. has different processes and applications in the areas of air purification, solvent recovery and heat recovery, such as methods of air purification with thermal oxidation (TNV) or catalytic oxidation systems (KNV) and concentration. The systems are developed according to customer needs, environmental and economic aspects shape the solution style.



BIOENERGY

Energy for the future



The biogas plant BOSANY is located 50km from Nitra (Slovakia). HEAT Bioenergy as a general contractor designed and built the complete plant on turn-key basis. The plant, which started its operations in 2012, is designed to process approx. 100.000 t/y of organic residues and renewables, with an electric generation capacity of 2 x 1,4 MW.

Some product and solution references and examples

Refrigeration and air cooling systems



REFRIGERATION

Refrigeration and air cooling systems with responsibility

At HEAT Refrigeration experts are working for economic and sustainable refrigeration. With these objectives, we build commercial and industrial refrigeration systems for applications in the food production, distribution as well as for process cooling. As partner of plant manufacturers of building equipment HEAT Refrigeration builds chiller-systems with natural refrigerants.

Our service team for maintenance and trouble-shooting completes the offer:

- Refrigeration equipment for commercial and industrial applications
- Chillers for special applications
- Ammonia refrigeration systems
- Exclusive partner of CIAT for Austria
- Cooling towers



AUSTRIA

Experience is our strength

For many years, R+I's experience has been established in a variety of applications. R+I is accepted as a partner in the industry, not only on turnkey projects, but also when it comes to maintenance and optimization tasks.

R+I is focused on long-term cooperations, thus flexibility and high quality standards are among the key priorities of the organization. R+I customers around the world are relying on our state-of-the-art knowledge in the scope of long-term partnerships.



Some product and solution references and examples

Oil and gas industry



The solution for your success



LOG Oiltools provides the following activities on the market:

Products:

- Packers & bridge plugs and accessories
- Drilling tools
- Flow control equipment



Services:

- Product planning, re-design
- In field well service



The experts in gas and oil



Premaberg has its main focus on the oil, gas and petrochemical industry and hereby on the producing companies.

The products and services comprise following examples:

- Artificial lift products
- Surface and subsurface safety products
- Monitoring and control systems
- Plant components



HEAT Group members

HEAT Holding GmbH

A-1120 Wien, Schönbrunner Straße 179
Tel.: +43 2236 73 130
Fax: +43 2236 73 130-300
heat@heatgroup.at
www.heatgroup.at

HEAT Refrigeration GmbH

A-2362 Biedermannsdorf, Siegfried Marcus-Straße 9
Tel.: +43 2236 710 970
Fax: +43 2236 710 970-700
heatref@heatgroup.at
www.heatref.at

HEAT gaswärmetechnische Anlagen GmbH

D-34119 Kassel, Querallee 41
Tel.: +49 561 288 56-0
Fax: +49 561 288 56-20
office@heat-gastechnik.de
www.heat-gastechnik.de

LOG Oiltools Kft.

H-8800 Nagykanizsa, Erdész utca 28.
Tel.: +36 93 537 140
Fax: +36 93 537 142
info@logoiltools.hu
www.logoiltools.hu

HEAT Romania S.R.L.

RO-54 0000 Targu Mures,
str. Cisnadiiei nr.2
Tel.: +40 365 430 057
Fax: +40 365 430 057
heatgazgep@gmail.com

HEAT Poland sp.z o.o.

PL-40 761 Katowice, ul. Twarda 21
Tel.: +48 32 252 17 82
Fax: +48 32 252 17 82
info@heatgroup.pl
www.heatgroup.pl

HEAT Czech Republic

Energy & Environmental Technology s.r.o.,
Haštalská 1072/6
CZ-110 00 Prag 2
Tel.: +420 608 661 338
info@heatgroup.cz
www.heatgroup.cz

PSC Personalmanagement GmbH

Zentrale: A-2362 Biedermannsdorf,
Siegfried Marcus-Straße 9
Niederlassungen in:
A-1230 Wien, Grawatschgasse 4/Top 14
Tel.: +43 1 890 40 69 / Fax: +43 1 890 40 69-18
A-7400 Oberwart, Lisztgasse 4
Tel.: +43 3352 20 205 / Fax: +43 3352 20 205-18
A-8054 Graz, Kärntnerstraße 400
Tel.: +43 316 228 175 /
Fax: +43 316 228 175-18
www.psc-personal.at

HEAT wärmetechnische Anlagen GmbH

A-2362 Biedermannsdorf, Siegfried Marcus Straße 9
Tel.: +43 2236 73 130
Fax: +43 2236 73 130-300
heat@heatgroup.at
www.heat.at

HEAT-Gá zgép Kft.

H-8800 Nagykanizsa, Erdész utca 28.
Tel.: +36 93 537 140
Fax: +36 93 537 142
heat-gazgep@heatgroup.hu
www.heat-gazgep.hu

PREMABERG Industrieanlagen GmbH

A-2362 Biedermannsdorf, Siegfried Marcus-Straße 9
Tel.: +43 2236 76 265
Fax: +43 2236 76 265-400
premaberg@heatgroup.at
www.premaberg.at

HEAT Bioenergy GmbH

A-2362 Biedermannsdorf, Siegfried Marcus-Straße 9
Tel.: +43 2236 73 130
Fax: +43 2236 73 130-300
heatbio@heatgroup.at
www.heatbio.at

HEAT Hungary Kft.

H-1047 Budapest, Attila u. 63
Tel.: +36 1 369 15 32
Fax: +36 1 369 72 16
heatgroup@heathungary.hu
www.heathungary.hu

HEAT Bulgas OOD

BG-1113 Sofia, Fr. Joliot Curie Str. 20, Office 803
Tel.: +359 2 963 1741
Fax: +359 2 816 4270
bulgas@trading.bg
www.heatgroup.at

E.U.T. Anlagenbau GmbH

A-2362 Biedermannsdorf, Siegfried Marcus-Straße 9
Tel.: +43 2236 712 662
Fax: +43 2236 712 662-400
office@eutwien.at
www.eutwien.at

R+I Rohr- und Industrieanlagen GmbH

A-2362 Biedermannsdorf, Siegfried Marcus-Straße 9
Tel.: +43 2236 710 429
Fax: +43 2236 710 429-900
ri@heatgroup.at
A-8230 Greinbach, Gewerbepark, Penzendorf 254
Tel.: +43 3332 640 54
Fax: +43 3332 640 54-900
ri@heatgroup.at
www.rui.at