STL Power & Process Controls

IN PARTNERSHIP WITH

RTK®

sart von Rohr

SCHROEDAHL®

Tgema

Fromme | F&M Armaturen

Armstrong

TAS THERMAL • ACOUSTIC • SAFETY BLANKET INSULATION

CELEROS FLOW TECHNOLOGY COPES-VULCAN

LESLIE CONTROLS

SPENCE™

R.G. LAURENCE

Designed & Manufactured by our partners
Stocked & Serviced in the UK by STL Power & Process Controls Ltd.

WE ARE INDEPENDENT CONTROL VALVE SPECIALISTS OFFERING:

✔ GREAT SERVICE

✔ GREAT PRODUCTS

✔ GREAT SUPPORT

History

Established in 1998 as RTK Controls UK - the UK & Ireland sales office of Regeltechnik Kornwestheim GmbH (RTK). After being bought by Circor International, RTK Controls UK completed a management buyout and changed name to STL Power & Process Controls Ltd. In 2022, the company was sold to the founder's daughter and son-in-law. We proudly remain a private family run company, maintaining strong supplier relations and delivering exceptional customer service..

What we do

Our core products are Control Valves, Pressure & Temperature Regulators, Manual Valves, Level Gauges, Insulation Jackets and Energy Surveys, and Pressurised Deaerators. We also supply a broad range of associated valves and flow control products.

After Sales Service & Support

Inspection, repair & overhaul

- Boiler/Steam system commissioning
- Onsite and offsite repairs
- Genuine spare parts
- Onsite trouble shooting
- Control system reviews

Certificates

Citation ISO Certification — Quality management — ISO 9001: 2015 — REGISTERED

Certificate No:195292012

SafeContractor.com — SafeSupplier VERIFIED — Alcumus.com

Achilles UVDB SILVER PLUS

Official Partners

RTK®

Founded in 1975. Control valves and instruments manufactured in Germany.
https://www.rtk.de/en-us/

SCHROEDAHL®

Founded in 1962. Severe service valves, desuperheaters and pump protection valves (ARV) manufactured in Germany.
https://www.schroedahl.com/en

sart von Rohr

Founded in 1930. Control valves, regulators and desuperheaters manufactured in France.
https://www.sart-von-rohr.fr/en-gb/home/

CELEROS™ FLOW TECHNOLOGY — COPES-VULCAN®

Founded in 1903. Critical service control valves and desuperheaters manufactured in Texas.
https://www.celerosft.com/en-us/brands/copes-vulcan

TAS THERMAL • ACOUSTIC • SAFETY BLANKET INSULATION

Founded in 1988. Removeable blanket insulation and shields manufactured in Hungary.
https://shannonglobalenergy.com/

Igema

Founded in 1919. Measurement and control systems manufactured in Germany.
https://www.igema.com/en/

Fromme | F&M Armaturen

Founded in 1982. Valves and strainers designed in Germany.
https://www.fromme-armaturen.de/en/

Armstrong®

Founded in 1900. Control valves for severe service manufactured in Italy and USA.
https://armstronginternational.eu/

LESLIE CONTROLS

Founded in 1905. Control valves for severe service manufactured in India.
https://www.circor.com/brands/leslie-controls

R.G. LAURENCE

Founded in 1883. On/off control valves manufactured in India and USA.
https://www.circor.com/brands/rg-laurence

SPENCE™

Founded in 1926. Steam traps and regulators manufactured in Mexico.
https://www.spencevalve.com/en-us

info@stlpowerprocess.com +44 (0)1462 480121

CONTROL VALVES

Electric & Pneumatic 2-way & 3-way Control Valves

DN15–300 | NPS ½"–6"
PN16–250 | CL 150 1500

Body Materials: SG Iron, Carbon Steel, Stainless Steel
Connections: Flanges, Butt Weld, Threaded NPT or BSP
Variants for refrigerants & thermal oil

OPTIONS – Bellows, PoP (Power Off Positioner), ECU (Emergency Closing Unit), positioners, silencers, various seat materials and stem packing, stem heaters, additional limit switches, quick change seat
Plug options: On/Off, V-port, parabolic, perforated, 3-way mixing & diverting

High Pressure Control Valves

DN15–500 | NPS ½"–20"
PN40–640 | Class 300 4500
Temp Max 650°C | 1200°F

Actuators – Electric, pneumatic, hydraulic
Designs – Angle type, globe type
Multi-stages

Desuperheaters & Steam Conditioning Valves

DN40–2500 | NPS 2–48"
PN16–640 | Class 150–4500

Steam Atomising Atomising the cooling water before injecting into the steam flow.

Spray Nozzle Direct contact desuperheater that uses spray nozzles to inject a fine mist of water

PRDS Combined pressure reducing and desuperheating in one valve. Specially adapted trim for low wear operation.

Rotary Globe Valves

PN16–100
DN25–150 | NPS 1"6"
KVS9–700
Max Temp: 250°C
Carbon Steel, Stainless Steel

Double offset plug rotatory control valve for high turndown

Boiler Feedwater Valves with Recirculation Connection

DN25–80 | 1"3"
PN40 | CL 150 300
Body Material: Cast Steel

Designed to protect feedwater pumps against falling below the minimum flow rate.
Adjustable recirculation rate up to 10% of KV valve.
Perforated plug for feedwater controls.

Continuous & Bottom Blowdown Valves

DN15–65 | NPS ¼"–2½"
PN40 | CL 300
Body Material: Cast Steel

Bottom Blowdown:
- Maintenance-free spindle packing
- Clear flow through the valve
- Protection of the spindle packing by back sealing when the valve is open

Continuous Blowdown:
- 2-way design with or without sample valve
- Hardened plug and seat for low wear operation
- Parabolic plug with linear characteristics for exact dosing of blow down flow rate

Temperature & Pressure Regulators

Self-acting
Functions: heating, cooling, mixing or diverting

Wide range of pressures – from a few millibars to several tens of bar

Applications: Excess pressure, pressure reducing, differential pressure, for liquids, natural gas, steam, process fluids, clean steam, CIP, SIP, inerting, etc.

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Schroedahl Pump Protection Valves (ARV)

DN25–500 | NPS1 ″20″
PN10–640 | Class 150 4500
Temp Max 230°C | 446°F

The ARV (Automatic Recirculation Valve) is an automatic solution to protect centrifugal pumps against overheating, instability, and cavitation under no or low pressure volume conditions.

As soon as the flow rate of the process falls below a certain value, the bypass opens and thus guarantees the minimum flow required for the pump.

Functions:
• The ARV determines the flow rate in the system and takes up a corresponding stroke position
• Automatic Recirculation Flow: The ARV bypasses the minimum flow to the suction tank or condenser, preventing overheating of the pump.
• High Pressure Reduction:
The cascade element in the bypass reduces the high pressure of the main flow to a lower pressure in the suction tank, this combined with a low noise level and minimum wear and tear.
• The ARV has a safety function to prevent reverse flow into the pump.

Media: Liquids of all kinds (water, oils, chemicals, descaling water, and others)
Installation: Vertical or horizontal

Globe Valves
Butterfly Valves
Gated Valves
Check/Non Return Valves
Ball Valves Manual & Actuated
Steam Traps

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INSTRUMENTATION

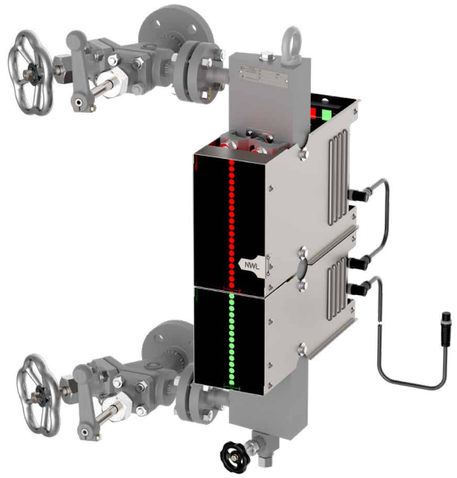
Level Gauges

Direct Level Gauges– the water level is directly shown through a glass or mica shield. The level gauge is able to separate the water and steam zone with use of a transparency level gauge with background illumination.

- Reflex
- Transparent
- Bi-Colour

Indirect level gauges– the water level is transmitted either by a magnetic flap indication ledge attached to the water column or by the electronic water level indicator.

- Magnetic
- Electric



Sensors & controllers

Lever transducers– The level is determined by the weight of a displacer, which is located in the medium. The weight depends on the buoyancy, which is dependent on the level and density of the liquid. The buoyancy is measured with a spring balance and converted to a 4 20mA signal. Reference vessels for agitated fluids are available.

Temperature Probes– For standard applications, typically used for measuring temperatures of liquids or gases in pipelines or containers. They offer fast response time and come complete with a stainless steel thermowell.

Pressure Sensors– For use in heating and refrigeration systems. Suitable for gases and liquids.

Controllers– For TDS, level, pressure and temperature.

Functions include - PID control, 3-point step and continuous monitoring.

INSULATION JACKETS

- Bespoke design, individually manufactured
- Supplied as one off jackets or a project bundle
- Removable and reusable high quality insulation jackets
- Self-contained, so no direct exposure to insulation
- For use in steam and process applications for thermal reduction, acoustic reduction, steam trap heat shields, sanitary wash down and fire blankets.

Energy Survey Services

The Energy Survey proposal will include every bare surface opportunity that meets financial criteria. Simple payback period ranges from 3 to 36 months on the steam and process system.

ENERGY SURVEY SAMPLE

Presented By: TAS Blanket Insulation Kft.
Phone/Email: +36 30 558 4126
Project Name: Sample Steam System
Project Contact:
Phone/Email:
TAS Project #: 25565

Survey Date: 1/30/2025
Steam Cost: 50€/ton of steam
Product Specification: LT232C-SS
Insulation Thickness: 40mm
Fastener Type: Velcro® Flaps/Dbl D Ring STD. Straps
Proposal Date:

QTY	DESCRIPTION / LOCATION	AMB. TEMP	MEAS. SURFACE TEMP	OPERATING HOURS	BARE HEAT LOSS (W/HR)	BARE OPER. COST (€/YEAR)	INSULATED HEAT LOSS (W/HR)	INSULATED OPER. COST (€/YEAR)
	BOILER ROOM - BLR. 1,2 & 3							
3	DN100 Safety Relief Valve	30	210	8760	2,800	€2,001.69	236	€168.83
3	DN150 Globe Valve	30	210	8760	8,411	€6,013.62	709	€507.20
3	DN150 Orifice Flange	30	210	8760	2,640	€1,887.34	223	€159.18
6	DN40 Globe Valve	30	210	8760	5,049	€3,609.88	613	€438.22
18	DN65 Globe Valve	30	210	8760	21,320	€15,243.63	1,798	€1,285.68
3	DN65 Strainer	30	210	8760	3,553	€2,540.61	300	€214.28
3	DN65 Control Valve	30	210	8760	4,086	€2,921.70	345	€246.42
72	DN25 Globe Valve	30	180	8760	44,507	€31,821.73	5,080	€3,632.40
12	DN25 Control Valve	30	180	8760	8,531	€6,099.16	974	€696.21
3	Boiler Door Ø 2.6 m × 12 cm	30	210	8760	81,262	€58,100.32	27,629	€19,753.89
	STEAM HEADERS							
18	DN150 Globe Valve	25	190	8760	46,260	€33,074.92	3,660	€2,616.52
6	DN50 Globe Valve	25	190	8760	4,848	€3,465.89	383	€274.18
9	DN25 Globe Valve	25	180	8760	5,749	€4,110.31	656	€469.18
3	DN150 Control Valve	25	190	8760	8,867	€6,339.36	701	€501.50
6	DN15 Ball Valve	25	180	8760	2,936	€2,099.13	335	€239.61
3	DN15 Strainer	25	180	8760	1,659	€1,185.95	189	€135.37
3	DN150 Safety Relief Valve	25	190	8760	3,855	€2,756.24	305	€218.04
3	DN50 Orifice Flange	25	190	8760	857	€612.70	68	€48.47
3	DN200 Globe Valve	25	190	8760	11,296	€8,076.62	894	€638.93
3	DN100 Globe Valve	25	190	8760	5,133	€3,669.76	406	€290.31
6	DN150 Orifice Flange	25	190	8760	4,839	€3,460.13	383	€273.73

ENERGY SURVEY SUMMARY SAMPLE

Total Heat loss - **BARE** (kWh/Year):	2,439,287.34
Total Heat loss - **w/TAS Blanket Insulation** (kWh/Year), **only**	401,970.33
Total Heat loss SAVED - w/TAS Blanket Insulation (kWh/Year):	**2,037,317.01**
Total Annual Operating (Steam Cost) - **BARE**	€199,090.70
Total Annual Operating (Steam Cost) - **w/TAS Blanket Insulation, only**	€32,808.17
Annual (Steam Cost) SAVINGS w/TAS Blanket Insulation	**€166,282.53**
***Lifetime (Steam Cost) SAVINGS (15 Yrs)**	**€2,444,629.32**
Total Cost (Thermal Blanket System)	€49,608.63
Total Cost	**€49,608.63**
Payback (Months)	5
ROI	335.18%
Number of Fittings	189

SUSTAINABILITY MEASURES SAMPLE

EMISSIONS SAVINGS #1 NATURAL GAS (kWh):	**2,037,317.01**
CO_2 (tons)	407.03
NO_x (kg)	473.10
VOC (kg)	16.96
EMISSIONS SAVINGS #2 FUEL OIL (kWh):	**2,037,317.01**
CO_2 (tons)	620.90
NO_x (kg)	1,239.24
VOC (kg)	36.21
CUBIC METER OF WATER SAVED (m^3/YEAR)	**3,157.76**

PRESSURISED DEAERATORS

- Reduces the dissolved oxygen content in the boiler feed water to <0.02 ppm
- Increases the feed water temperature above 100°C for improved boiler efficiency
- All wetted parts of the dome are constructed in stainless steel
- Dome design for optimum water droplet size

Theory

The deaerator operates at a working pressure of between 0.3 to 0.7 barg, which corresponds to the steam saturation temperature of 107 to 115°C. The solubility of oxygen in water at these temperatures is at its minimum, hence most of the oxygen will be driven out and discharged to atmosphere. The remaining oxygen in the water is removed by chemical dosing.

Dissolved oxygen is removed from the make-up water and returned condensate by steam deaeration. The softened make-up water and condensate mixture are typically introduced into the specially constructed deaerator dome, forming optimum droplet size for scrubbing as it does so. The heating steam increases the droplet temperature. This has the desired effect of reducing the solubility of gasses within the water droplets, thus diffusing the harmful oxygen and carbon dioxide out of the water.

If there are large quantities of very hot (and pressurised) condensate being returned, it is desirable to pipe the condensate directly into the deaerator storage vessel. This will maximise the heat recovery whilst helping to maintain the low dissolved oxygen level of the stored water.

Benefits

- The boiler feedwater from the deaerator is supplied at a higher temperature, making the boiler more efficient
- Dissolved gases are liberated from the boiler feedwater in the deaerator, saving both sulphite and amine chemical costs
- Prevents boiler and pipeline corrosion as Oxygen and Carbon Dioxide are eliminated as far as possible from the boiler feedwater

Power & Process Controls

INDUSTRIES SERVED

- Food & Beverage
- Power Generation
- Petrochemical
- HVAC
- General Manufacturing
- Industrial Refrigeration
- Pharmaceuticals
- Chemical
- Marine
- Hospitals & Healthcare Utilities

TYPICAL APPLICATIONS

- Steam
- Water/Boiler Feedwater
- Thermal Oil
- Ammonia & Refrigerants
- Hydrogen/Gases

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