



Sports Centre, Galtür (A)



Buderus, Lollar (D)



Hessen College, Frankfurt (D)

Collection, distribution – You got it!

**Warm or cold liquids
Collected or distributed
ZORTSTROEM has the solution –
Amazing results with a
single system and without
the hydraulic problems!**

**Europe-Patents
Energy-Oscar
Award for Innovation
Environmental-Award**

ZORTEA

ZORTSTROEM – multifunctional

We specialize in the collection and distribution of warm and cold liquids and understand the important requirements:

Especially when different temperatures have to be transferred and many hot and cold sources to be considered, we can convince with effective solutions that increase the efficiency of the building's energy-balance, outwit hydraulic problems and offer many more striking arguments:

Simple!

- Fast and flexible planning
- Simple construction
- Accurate functioning hydraulic system

Economical!

- Perfect cooperation of different heat generators/consumers (no hydraulic blockades)
- Simple installation of pipes in the boiler-room
- Zero service costs for flow-regulations etc.
- Minimum-stoppage renovation of the heating system
- Minimal energy consumption

Environmentally friendly!

- Use of existing heat sources and consumers due to innovative combination possibilities
- Very low return temperatures for condensing boilers and district heating plants
- Optimal use of the overall system's potentials
- Lower electricity consumption

Space-saving!

- Flexible installation
 - on the wall
 - on the ceiling
 - on the floor
 - around the corner
- Especially for reconstruction concepts

www.zortea.at

Helpful planning documents and pictures of plants clearly arranged on 60 pages.



School, Oberndorf (A) 250 kW



Wolfgang Fässler, Dornbirn (A) 60 kW

New energy system gains acceptance



Bauhof, Linz (A) 700 kW



Danfoss, Offenbach (D) 2600 kW



Secondary School, St. Michael (A) 1050 kW

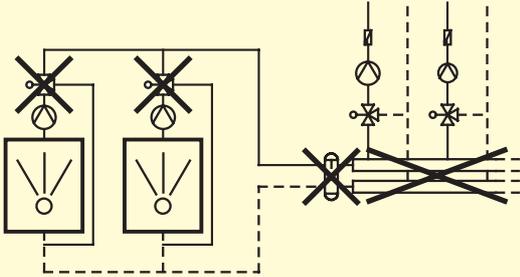


Hospital, Nürtingen (D) 3000 kW

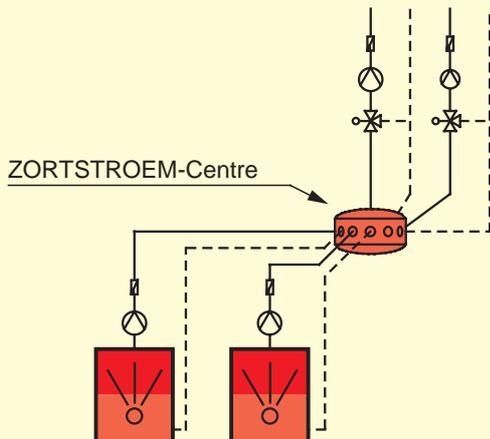
Centre

ZORTSTROEM-Centre for *high* return temperatures

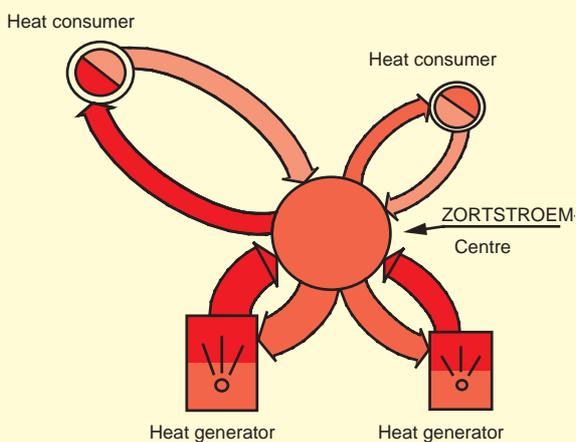
Up to now



With the ZORTSTROEM-Centre system



And that's how it works

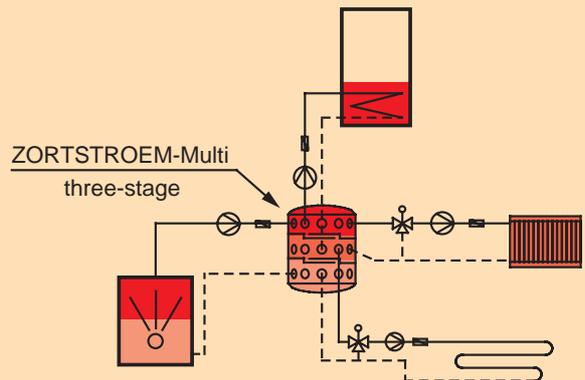


Multi

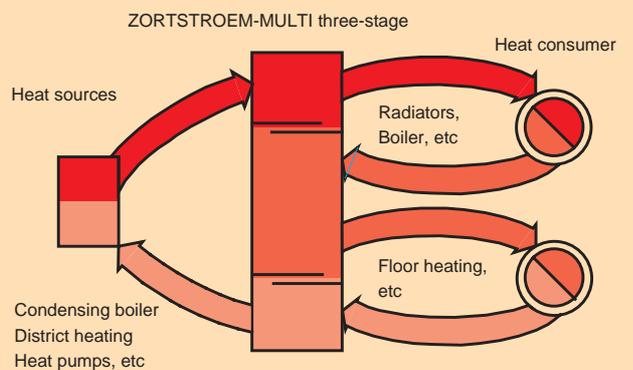
ZORTSTROEM-Multi for mainly *low* return temperatures from two stages upwards; rod-distributors offer only two temperatures.

What seemed to be impossible
we can make it happen...

...with the ZORTSTROEM-Multi system



And that's how it works



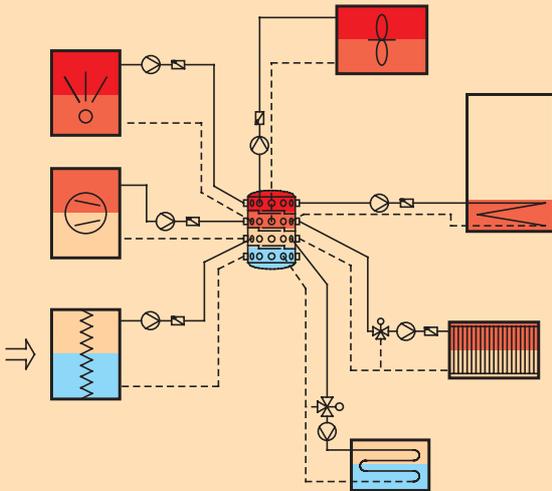
Multi-stage models (more than two stages)
i.e. additional reduction in temperature is
possible at any time.

ZORTSTROEM-Multi

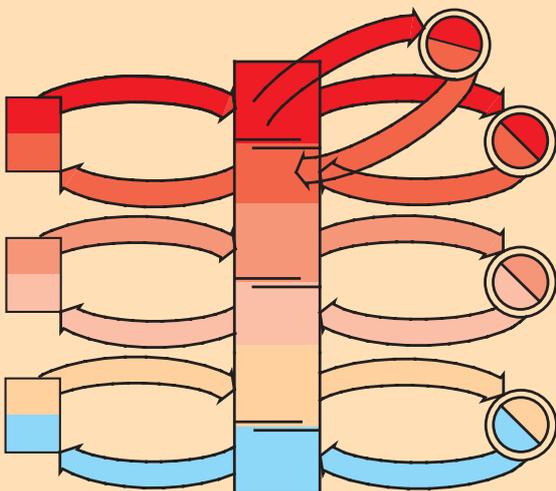
Multi-stage for *many* hydraulic solutions

What seemed to be impossible we can make it happen...

...with the ZORTSTROEM-Multi system



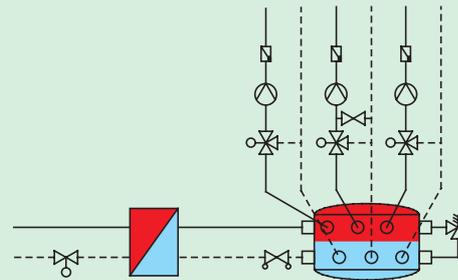
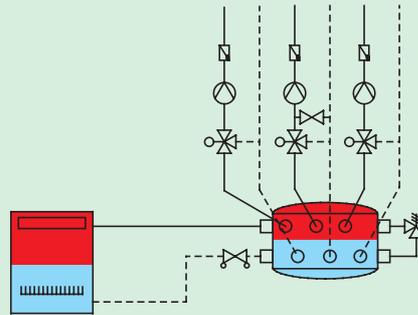
And that's how it works



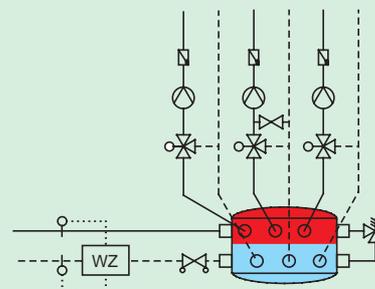
Multi-U

ZORTSTROEM-Multi-U

Volume of water variable, for *lowest* return temperatures
without boost bump
with the ZORTSTROEM-technique



Only so much water is sucked in from the heat generator as it is calculated for the difference in temperature. This is done completely independent from the actual performance of the pumps.

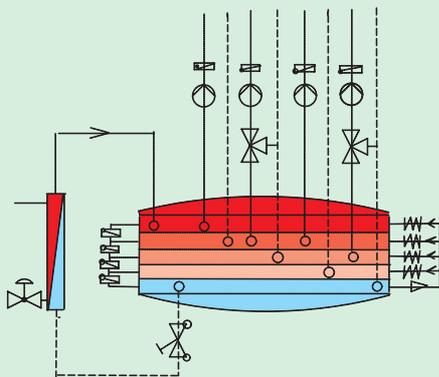
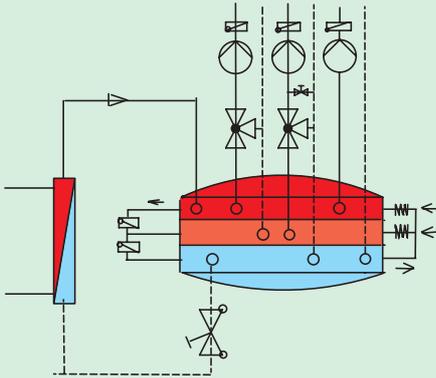


Due to the lower water throughput the heat meter becomes more precisely and its life span is extended. The actual performance of the pumps does not influence the volume of water in the heat generators.

Combi

Combi-Multi/Multi-U District heating – as alternative

ZORTSTROEM-Multi-U multi-stage without boost bump with the ZORTSTROEM-technique

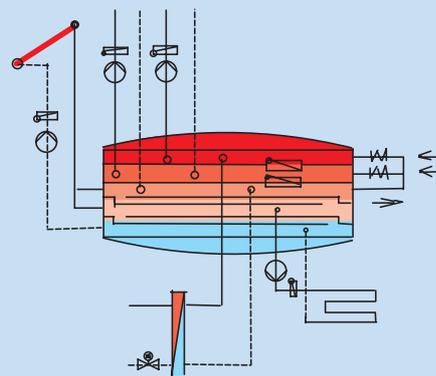
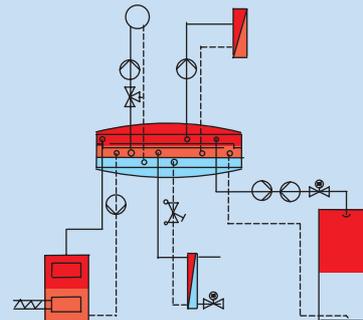
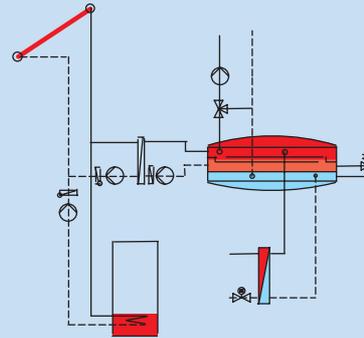


Total use of offered heat through gradual emission in various temperatures. High use of offered power.

Lowest return temperatures for close and district heating.

High heat transfer performance of long-distance lines due to the very big temperature difference obtainable.

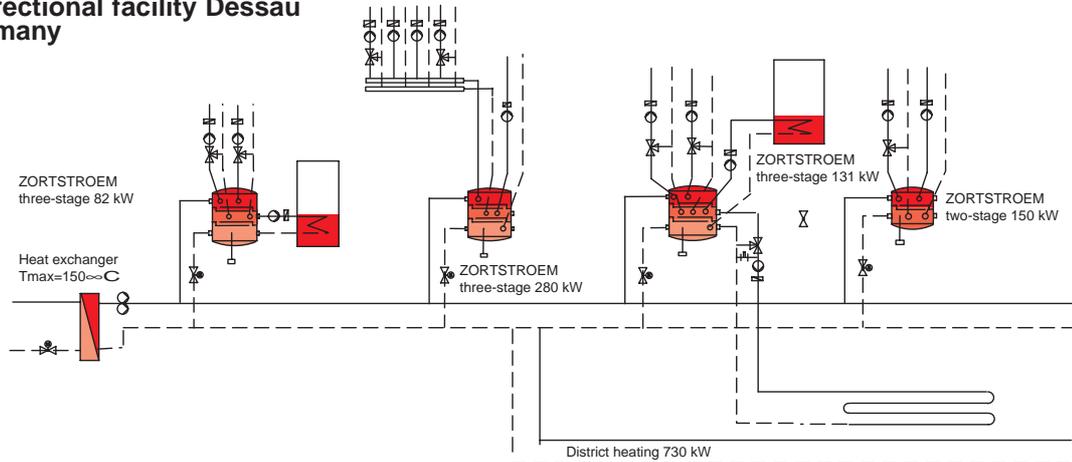
Increased efficiency of existing district heating plants.



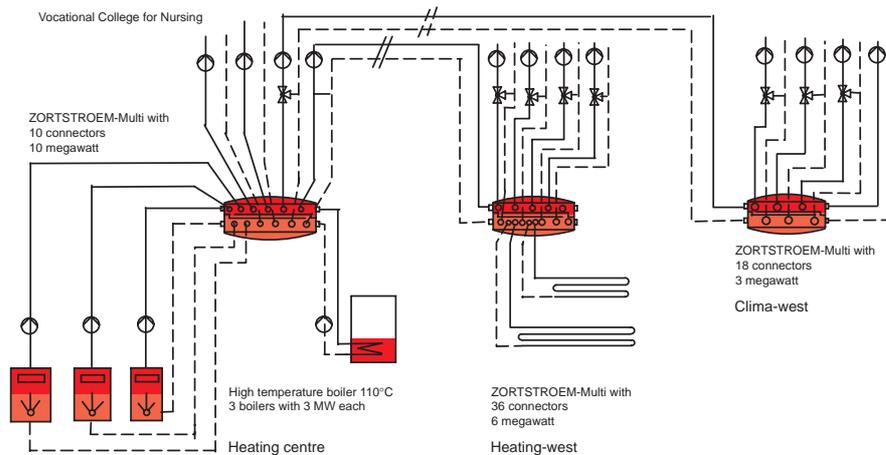
ZORTSTROEM - Combi makes it possible for close and district heating plants to deliver own alternative energy sources like solar power, biomass, waste heat etc to heat consumers in the requested temperature. Only the extra needed heat quantity is obtained from the district heating plant.

ZORTSTROEM-Group connections with amazing possibilities

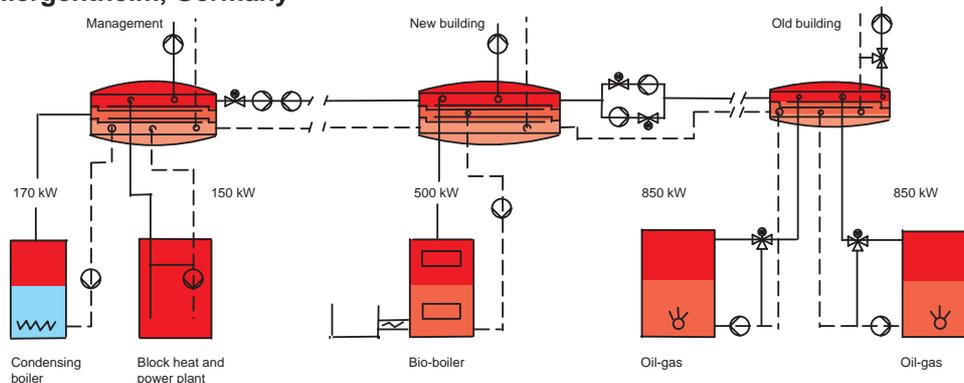
Correctional facility Dessau Germany



Hospital Nürtlingen, Germany 350 Beds Vocational College for Nursing



Bad Mergentheim, Germany



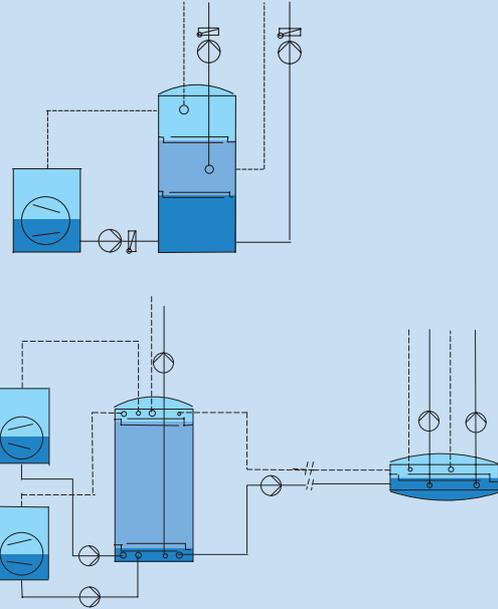
Apart from the decoupled distribution to all warm and cold liquid distributors, the heat can also be shifted around just as required. Therefore heat generators/consumers in different locations can be connected very easily.

Cooling

By using the ZORTSTROEM-System all hydraulic solutions can be utilized – either pure cooling or cooling combined with heating. The system offers all possibilities regarding cooling plants with small differences in temperature and large quantities of cooling water.

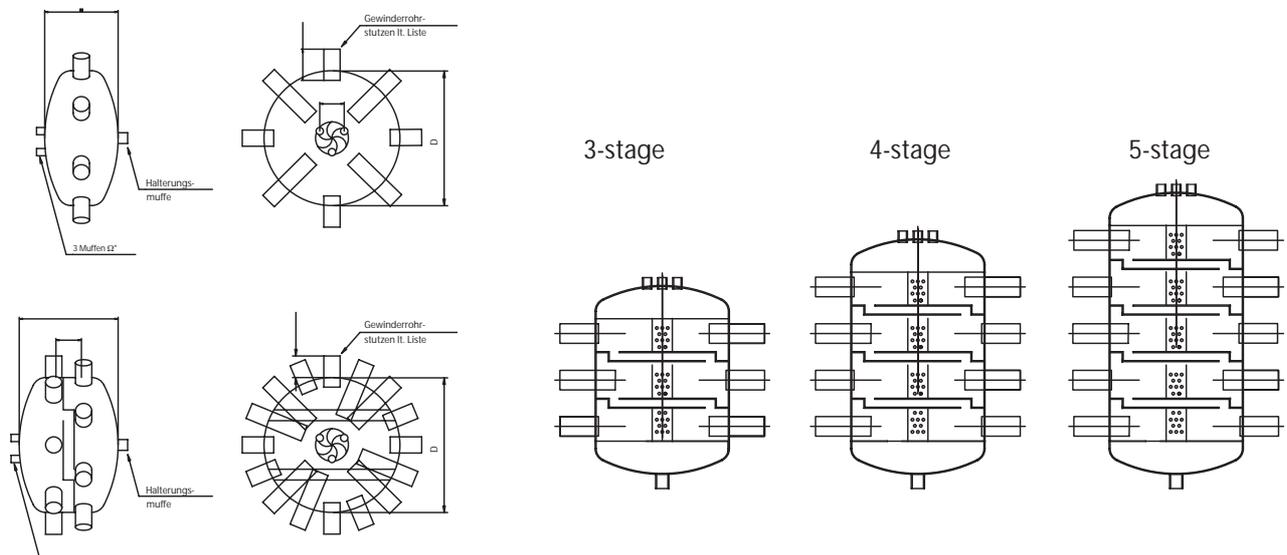


Volksbank, Nürtingen (D)



Sectional drawings

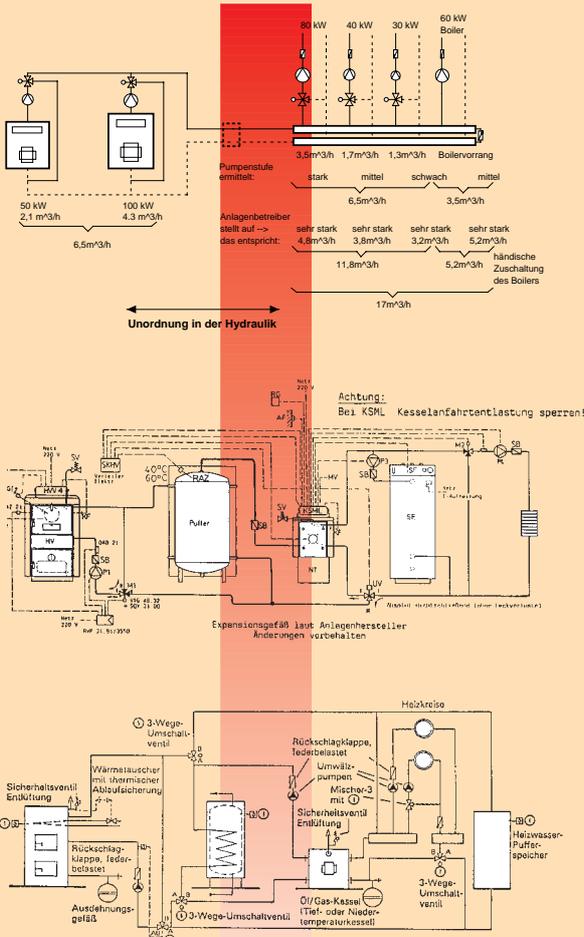
The ZORTSTROEM-System is based on many years of development and research gained from hundreds of successful system applications. New hydraulic solutions for heat and cold liquids are added constantly.



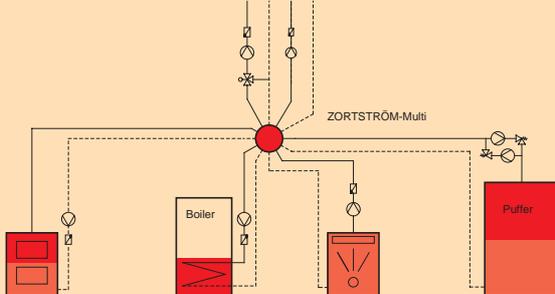
Effective comparison easily!

All sizes (from 5kW upward)
with dismantlable insulation

Traditional systems



And look how simple...



...the same heat generator and consumer can be connected with the ZORTSTROEM-System.

Individual manufacturing in compliance with the installation standards.



All advantages in one view

- **Fast custom solutions**
- Low space requirements - which means enormous space-saving benefits
- **Low planning costs** due to simple concepts
- System is upgradeable and expandable for the future
- **Reconstruction of heating centres** without disturbing work stoppage
- **Energy savings** thanks to excellent energy use
- **Additional cost reductions in various fields due to**
 - savings in electro planning and installation (electronic switchgear cabinet)
 - savings in control and switch valves (mechanical, electrical, microelectronic), in mixers and electronics (for return heat enhancement), in hydraulic disconnectors with insulation
 - smaller pumps (approximate value 1 Watt/kW heat demand)
 - renunciation of additional slide-valves, flanges, quantity regulators, pipe valves, and etc.
- Reduced service and maintenance costs
- Modern boiler-room design
- **Clear installation overview** for constructor and maintenance staff
- **Comprehensive and structured information** of building services engineering

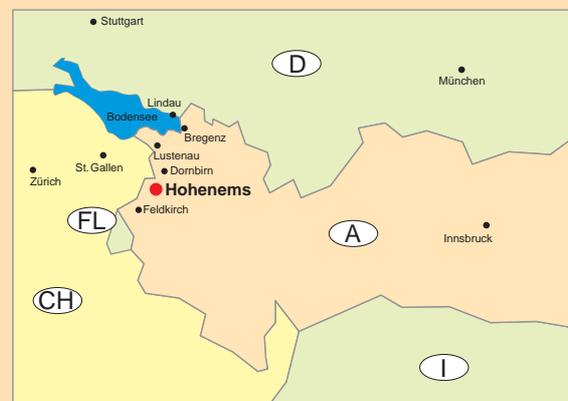
Investment and maintenance cost reduction up to 50% for heating centres!



Simple · Economical · Environmentally friendly · Space-saving

**Ask for our free planning folder and reference list!
Come and visit us on our website at www.zortea.at!**

Location



Rembert Zortea
Inventor of the
ZORTSTROEM-Systems

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