

**Welcome to Gas Tech Engineering Ltd.**

**Gas Tech**

## Hot water storage tanks & calorifier

# DINOX-D

Hot water storage tanks type **LAS**, calorifier **USW-1, -2, -X**, calorifier **LAS-E, -L**



## Hot water storage tanks & calorifier

# DINOX-D

Type **LAS** as hot water storage tank

Type **LAS-E** as electrical calorifier

Type **LAS-L** as loading system combination

Type **USW-1, -2, -X** as calorifier with 1, 2 or several spiral heat exchanger

- Material stainless steel AISI316Ti
- Made in Germany, designed, manufactured and tested according European Pressure Directive (PED) 23/97/EG, AD2000, EN13345 and EN3834
- Manufacturing certified by German TÜV
- Sizing up to 20000 l, max. pressure up to 25 bar
- All connection vertically in a line to minimize installation height and time
- Bottoms and shell all TIG butt-welded in totally equal diameter, no overlap, no gap and dead space for unhygienic germs or crack corrosion



## Hot water storage tanks & calorifier

# DINOX-D

- Tanks are internal pickled and passivized by completely bathing to avoid corrosion from scale oxide or chinks and to create cleanest surface possible
- Spiral heat exchanger by seamless bare tube as most advanced heat exchanger (comparable to U-tube): No welding, no stress or tensions, maintenance free by self cleaning from lime scale, no unhygienic external circulation necessary due to efficient heat transfer till the bottom of the tank
- Comes in 1 or more spirals either in serial, one above the other or in parallel arrangement for considering heat sources with various supply temp. or as booster
- CFC-free insulation in 100mm closed cell elastomeric foam and reinforced PE jacket, thermal conductivity  $0.036\text{W/m K}$ , can especially quick assembled after finished the piping or easy replacement during operation or maintenance, no unhealthy glass wool dust contamination!



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- E-Calorifier type LAS-E: Immersion heater in material Copper, Nicalloy or Stainless Steel; heater step control panels in multi step or step-less by solid state relays, as PLC or with digital temperature controller
- Loading system type LAS-L with external plate heat exchanger and loading pumps to charge buffer tank with equal outlet temperature as very economical version to cover very large peak loads with reduced tank size and minimized installation space in plant room

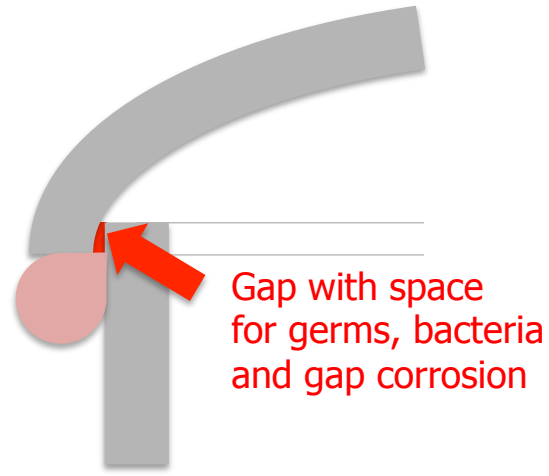
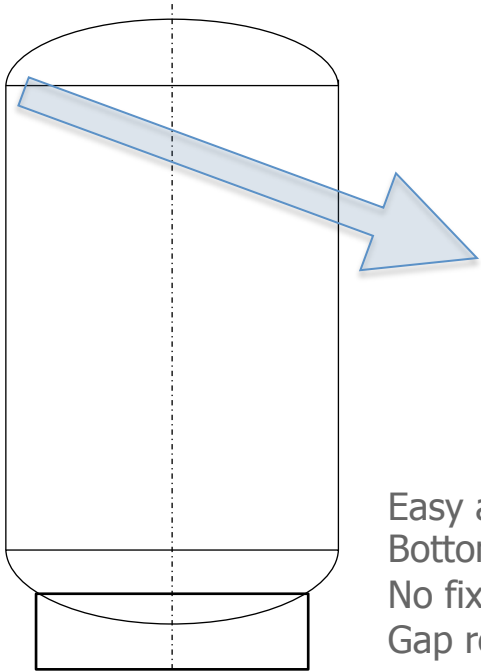


# Advantages in calorifier designs

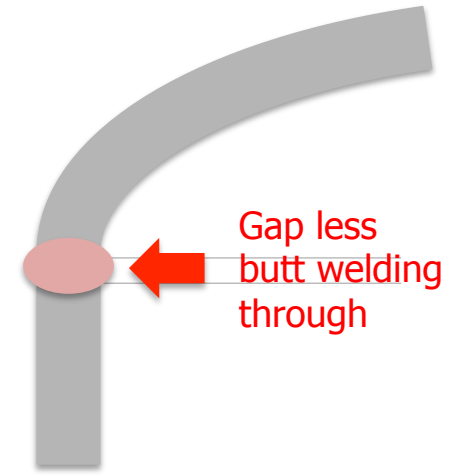
Gap-less welding >>

Others design >>

DINOX design



Easy and simple manufacturing:  
Bottom just kept over shell material  
No fixing necessary, just welding:  
Gap remain with high risk of growing germs, bacteria and gap corrosion

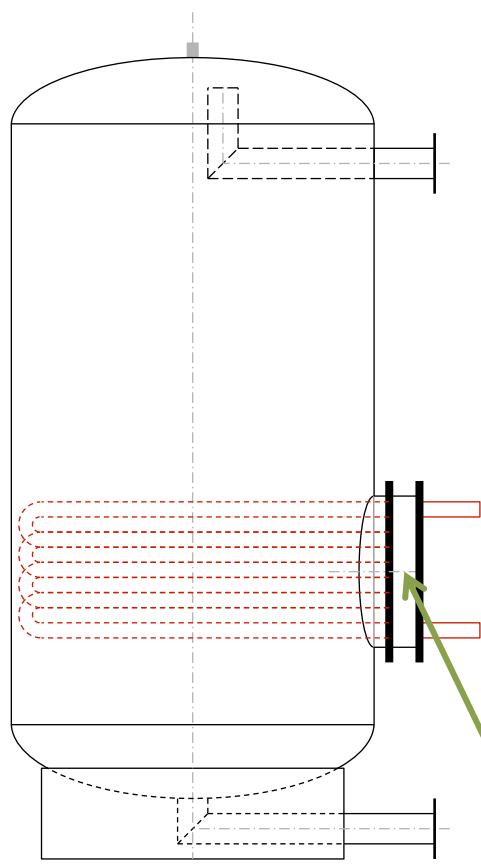


More advanced manufacturing:  
Bottom fixed by tool in distance in similar position and distance to shell material: No gap, butt welded through complete material, clean surface

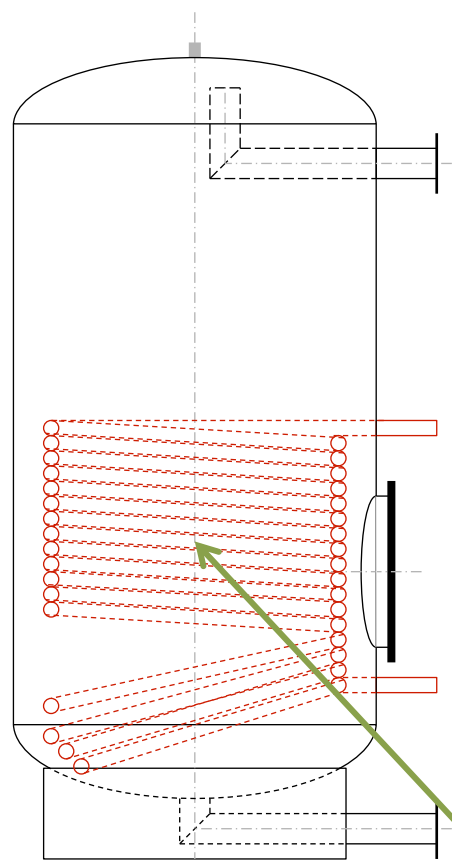
# Advantages in calorifier designs

Heat exchanger >> U-Tube >>

Spiral bare tube



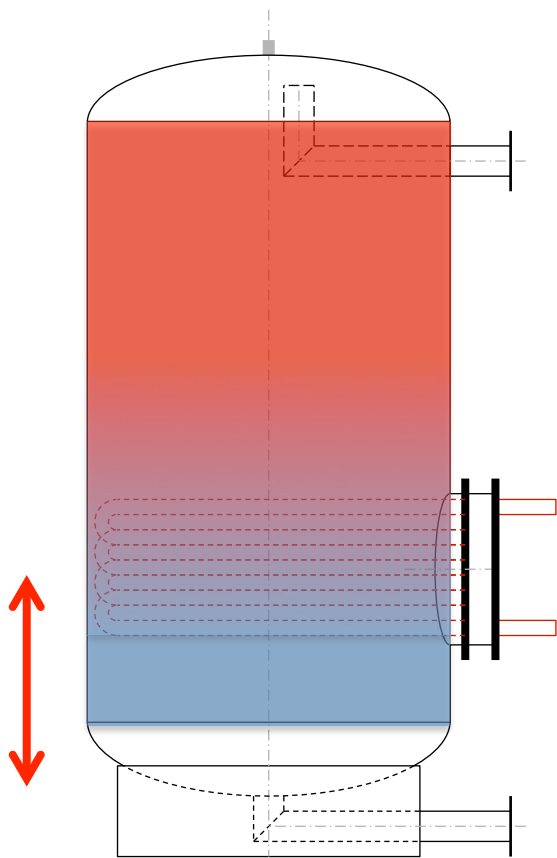
U-Tube heat exchanger is removable or replaceable



Seamless bare tube heat exchanger, 25 bar design pressure, unstressed operation

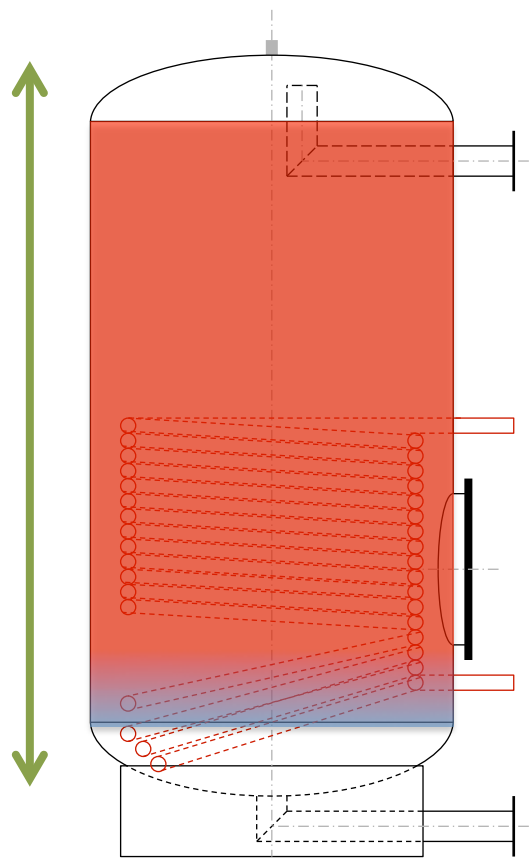
# Advantages in calorifier designs

Heat exchanger >> U-Tube >>



Up to 30% of the calorifier volume wasted with unheated water

Spiral bare tube

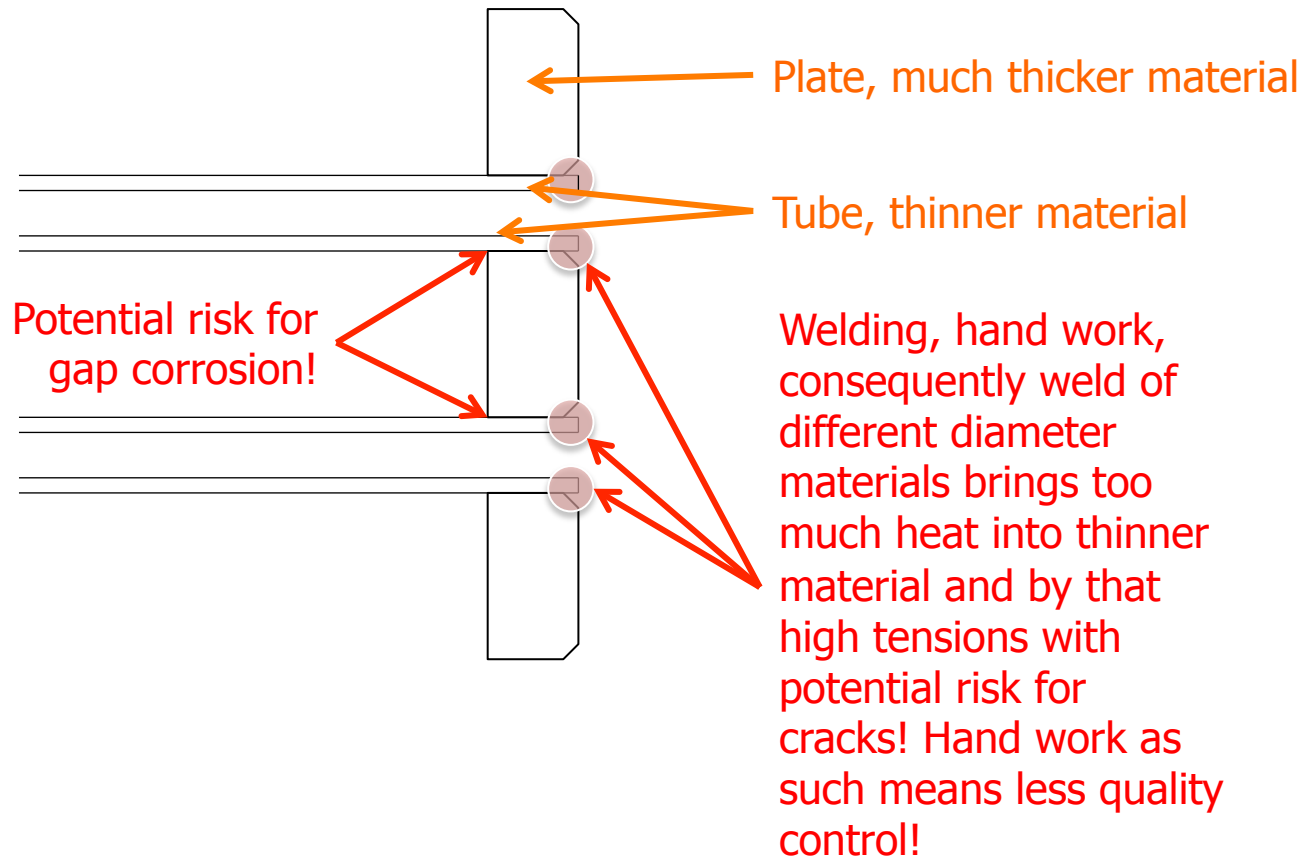


Special shape with heat performance down to lower bottom



# Advantages in calorifier designs

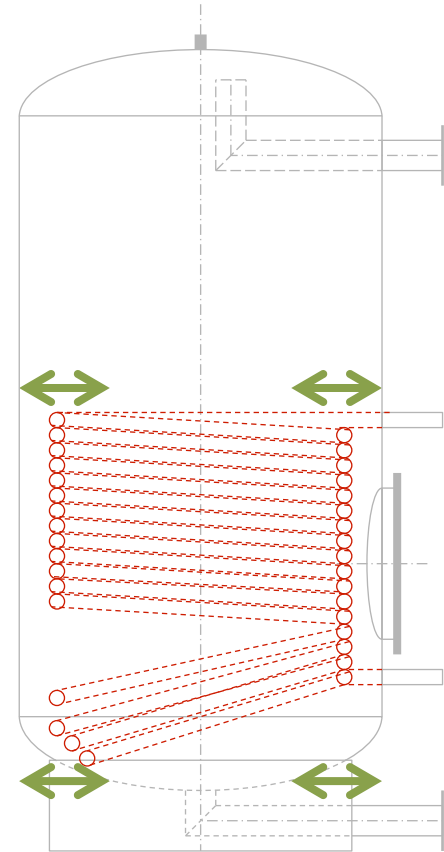
Heat exchanger >> U-Tube:



## Advantages in calorifier designs

Heat exchanger >> Spiral bare tube:

“Self cleaning effect” of scaling while moving through extension when heat up and cooling down – scale will brake and flushed away!



**Thank you very much!**

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