



# Safety Immersion Heaters ROTKAPPE® with ABS (Anti-Burn-System)

ROTKAPPE safety immersion heaters with Anti-Burn System minimise possible thermal damage to plants and tanks in the event of partial or complete loss of the liquid being heated.

Although EN60519/1-2 specify that electrically heated systems must be equipped by the user with safety technology (overheating protection and dry-running protection), even the best safety technology cannot protect the systems against mistakes by the operator or against the results of faulty maintenance.

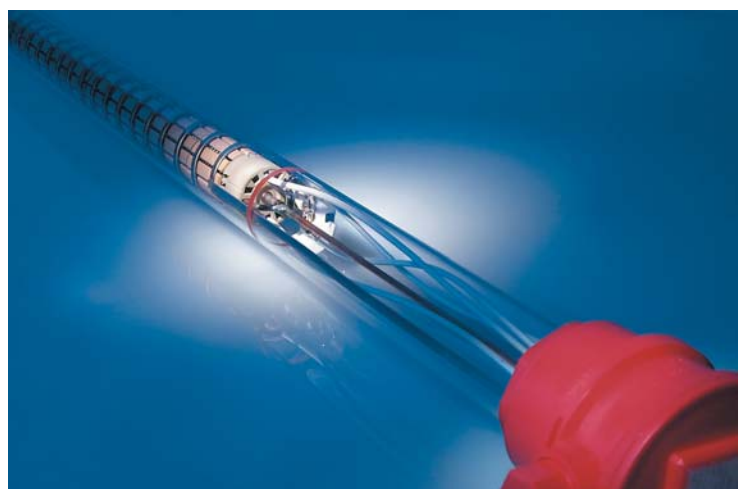
The following "critical" situations in liquid solutions up to 100°C can be avoided by using a safety immersion heater with Anti-Burn-System:

- Continuous operation of the heater with low fluid levels (due, for example, to evaporation of the fluid)
- Continuous operation of the heater with no fluid (due, for example, to a sudden, unexpected loss of fluid)
- Continuous operation of the heater when the transfer of heat from the heated immersion tube to the fluid is restricted (by, for example, heavy incrustation on the immersion tube)

ROTKAPPE safety immersion heaters with Anti-Burn System can be installed either vertically or horizontally in tanks and other plants. This flexibility simplifies the planning and installation of electrical immersion heaters to meet a wide range of requirements for such applications.

Please note that it is still necessary to install the normal overheating and dry-running protection devices in plants and tanks with electrical heating systems, even when using ROTKAPPE immersion heaters with Anti-Burn-System.

The optimum solution to this can be found in our product range of float switches, level-measuring probes and the related electronic controllers. We will gladly advise you in the solution of your safety problems.



## 1- or 2-phase connection

The integrated Anti-Burn System reacts in case of dangerous situations and switches off the heater. The heater remains off until the safety circuit is reset manually. This can be done only if the other safety devices are operating correctly and the tank and the heater are in good condition.

The heater cartridges are available for all rated voltages up to 400V and with rated powers of up to 6.4kW. The protective circuit of the Anti-Burn System is mounted on the heater cartridge.

## 3- phase connection

The integrated Anti-Burn System reacts in case of dangerous situations and switches off the heater with the aid of our differential current monitor DSW3 and a power relay. The heater then remains switched off until the safety circuits in the immersion heater and on the differential current monitor are reset manually.

A prerequisite for this is that all other safety devices are functioning correctly and that the tank and the heater are in good condition.

Our Anti-Burn System can be installed in all three-phase immersion heaters with rated voltages of up to 400V and a current consumption of 2 to 16A.

